

THE OXFORD
WAR ATLAS

VOLUME II

1 SEPTEMBER 1941

TO
1 JANUARY 1942

By

JASPER H. STEMBRIDGE



OXFORD UNIVERSITY PRESS

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P R E F A C E

THE first volume of *The Oxford War Atlas* was published at the end of 1941, and covered the first two years of the war. The preface stated that a supplementary volume would appear in due course.

This second volume carries on the story of the war in maps from September 1941 down to the beginning of 1943. Like the first volume, it is at the same time a reference atlas for the main theatres in which operations are now proceeding. The maps illustrate the strategy of the campaigns in Russia, Egypt, Libya, Tunisia and the Mediterranean and African areas in general ; the air war in Europe ; the tide of events in the Pacific theatre of war and in South-East Asia ; The Battle of the Atlantic, and the Pacific and Atlantic defences of the United States and the Western Hemisphere. There are also diagrams illustrating such features as Britain's War Effort and the Battle of Supplies, and general maps which help to clarify the geographical, economic, and political background of the present global conflict.

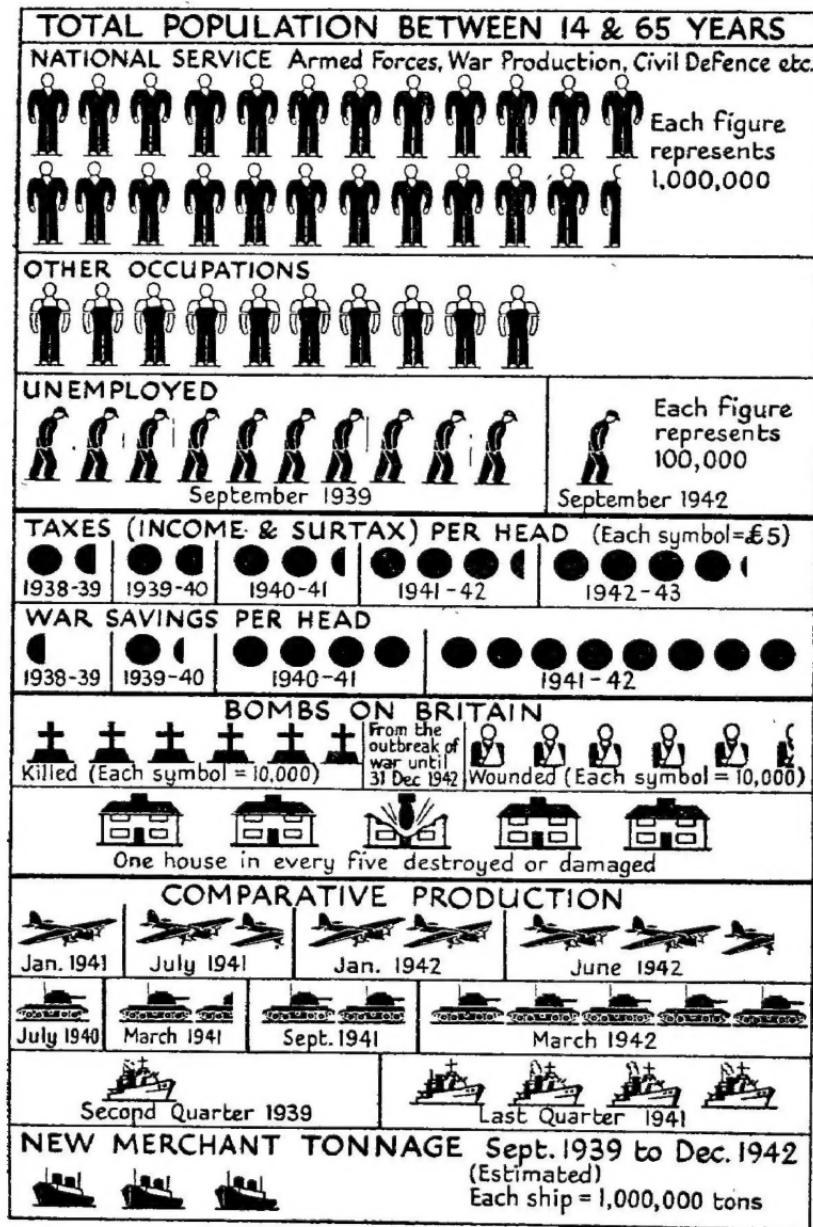
The maps and diagrams have been compiled from various official and authoritative sources. It is hoped to publish, early in 1944, a third volume dealing with the events of 1943.

J. H. S.

July 1943.

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I. BRITAIN'S WAR EFFORT

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AFTER the defection and fall of France most nations thought that Britain's day was done. Yet though only 20 miles of water separated her from the most powerful army and air force the world had ever seen, Britain, supported by the Empire (except for Eire), held the fort for civilization. For a year she stood alone. But for her epic resistance, even Russia's gallant fight would have been in vain and all lands would ultimately have fallen victims to the Axis aggressors.

Victory in the Battle of Britain gave a temporary respite. British man-power was fully mobilized; women were registered for National Service (first registration took place on 19 April 1941); production of war materials mounted steadily; and, despite the imperative need of defending Britain itself, an increasing supply of men and munitions were dispatched to other theatres of war. Up to the end of 1942 more than sixty thousand civilians, men, women, and children, were killed by enemy action—a figure comparable to the total American losses in the First World War. Of the total casualties suffered by Empire troops during the first three years of war 70 per cent were suffered by those from the United Kingdom.

The diagram illustrates some of the main features of Britain's war effort. In September 1942, out of 33 million people between 14 and 65 years of age 23½ millions were mobilized for full-time national work, and the number of unemployed had fallen to about 100,000 compared with 1,000,000 in September 1939.

In the financial year 1942–3 some 60 per cent of Britain's National Income was devoted to war expenditure, and of this amount 45 per cent was paid for by taxation. Besides being the most heavily taxed people in the world the British have set aside increasing amounts in War Savings, some £50,000,000 of which have been lent to the Government free of interest. Comparative production of all kinds of war material has expanded so greatly that at the end of 1942, despite bombs and black-out, rationing and other restrictions, Britain's output of munitions per head exceeded that of any other country.

An arsenal and commissary of the United Nations, an outpost of democracy against the Nazi hordes, Britain is fighting all out to resist a tyranny unparalleled in the history of mankind.



2. BOMBING OFFENSIVE OVER EUROPE

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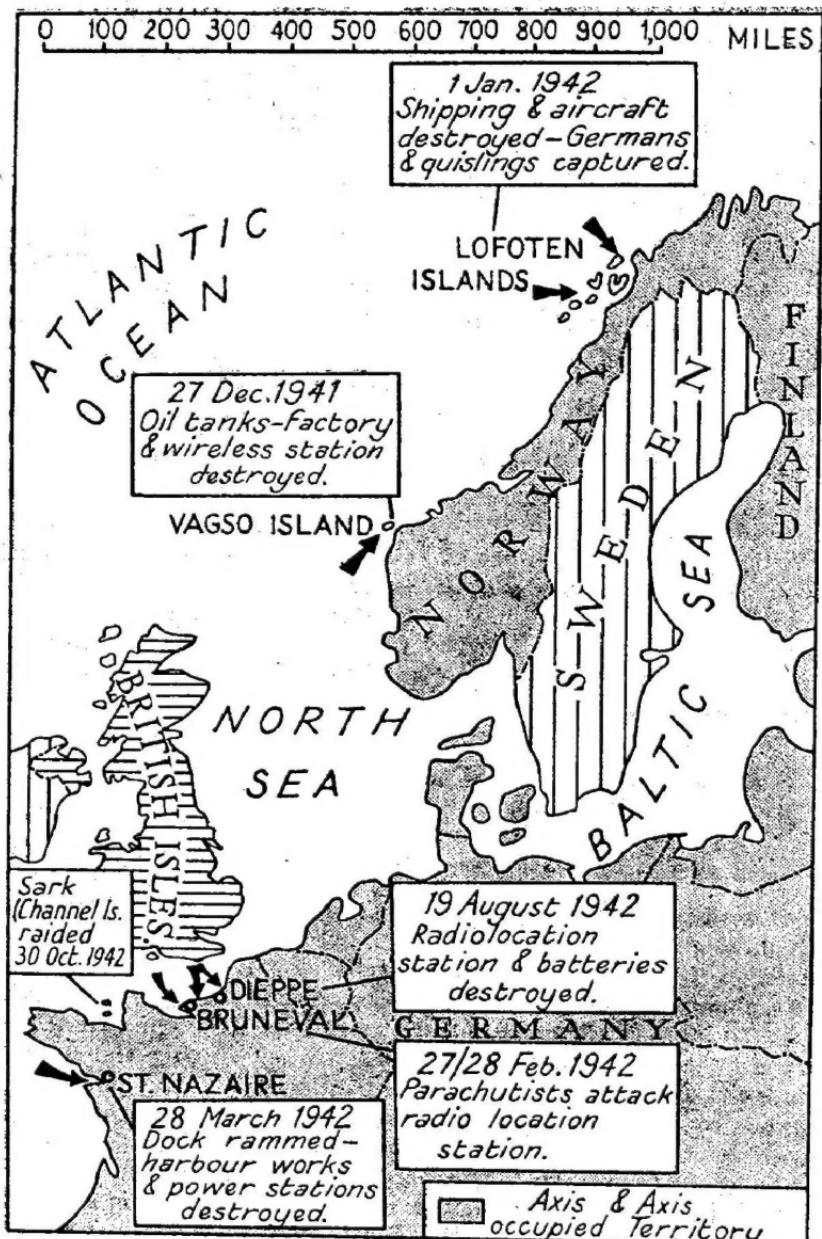
THE primary aims of British and American bombing operations over Axis and Axis-occupied Europe are (1) to attack military and industrial objectives ; (2) to destroy transport ; (3) to force the enemy to retain at home, or in Western Europe, forces that would otherwise be available for use against Russia, and (4) to weaken enemy morale.

The map shows that the greater part of occupied Europe lies within bombing range of the British Isles, while targets in Southern Italy are within easy range of Allied bases in North Africa. Apart from air attacks on naval bases such as Brest, Lorient, and Wilhelmshaven, devastating blows have been inflicted on such widely separated industrial areas as (1) Northern France ; (2) Hamburg, Bremen, Lubeck, and Rostock ; (3) Cologne and the Ruhr ; (4) Mainz and other centres in Southern Germany, and (5) Milan, Turin, and Genoa in Northern Italy, which alone account for two-thirds of Italy's war production. This, of course, is well known. Less realized perhaps is the importance of damage done to transport, which is subjected to an increasing strain owing to the British blockade.

Because of the blockade goods formerly imported from overseas must now be replaced by others, or by ersatz substitutes, which have to be carried by rail, road, and inland or coastal waterways, the last named a very precarious method. In peace time the bulk of Rumanian oil, on which Germany so largely relied, was dispatched by way of the Mediterranean to refineries at Hamburg and Bremen. Now this oil has to be sent to Germany either via the Danube, frozen in winter, or by rail. Before she entered the war Italy received 80 per cent of her imports by sea. Among them were 10,000,000 tons of coal (83 per cent of her total supply), which she obtained mainly from Britain and Northern Germany. To-day her coal has to be transported from Germany by rail.

Oil shortage reduces the amount of road transport available and so increases the load on the railways. To some extent the strain on the railways is relieved, except during the winter months, by shipping an increasing amount of heavy and bulky goods by inland waterways. But even so this cannot compensate for the damage done to locomotives and rolling stock by air attacks, or the congestion caused by bombing railway centres.

For the Axis success in the Battle of Transport is scarcely less vital than victory in the Battle of the Atlantic is to the United Nations.



3. COMMANDO RAIDS

3. COMMANDO RAIDS

THE map shows the principal places in Europe where Commando raids were made between 1 September 1941 and the close of December 1942. Apart from their immediate objectives, such raids provide valuable training both in planning and execution, as is shown by the fact that commandos took part in the capture of Diego Suarez (Madagascar), in a raid on Spitzbergen (8 September 1941), and in the combined operations of the First Army in Tunisia.

The chief raids carried out were :

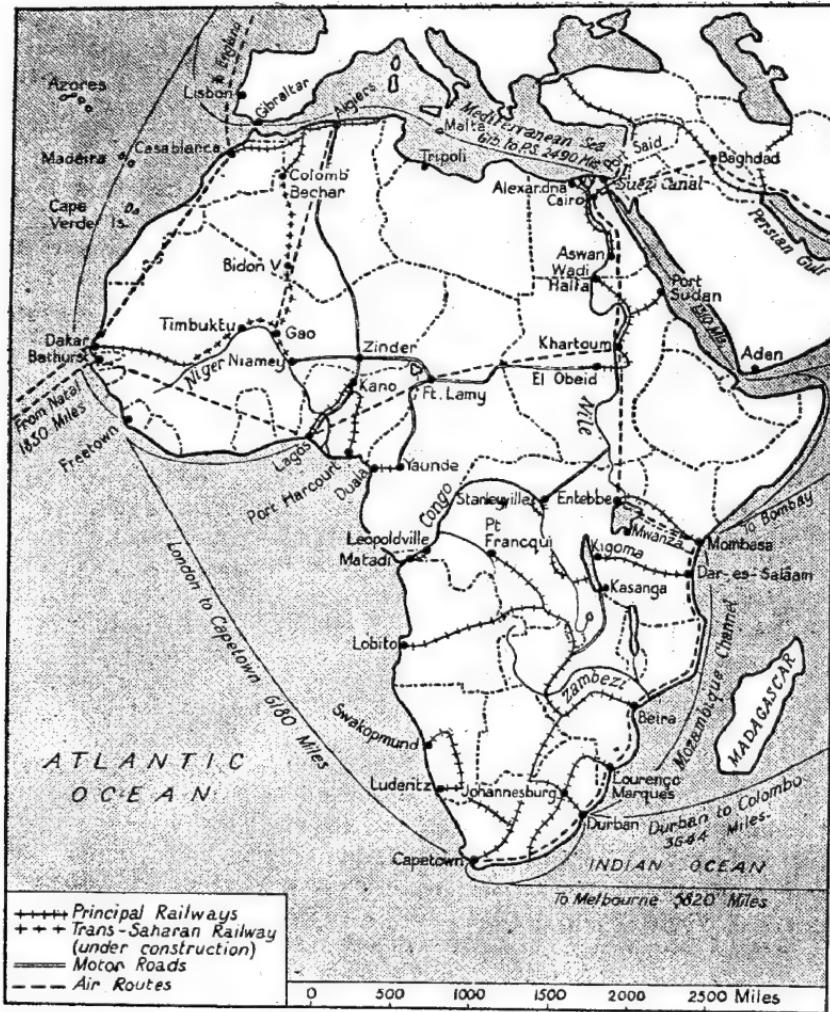
Lofoten Islands and *Vagso Island*. 27 December 1941. Shipping and enemy installations attacked. (The Lofoten Islands had been previously raided on 4 March 1941.)

Bruneval (12 miles north of Havre). 27-28 Feb. 1942. Parachute troops, having destroyed the radiolocation station, were taken off in barges and brought back to England by naval units.

St. Nazaire. 28 March. The dock gates were rammed by the destroyer *Campbelltown*, and harbour installations, including a pumping station and a power station, were damaged.

Dieppe. 19 August. The operations, officially described as 'a reconnaissance in force', were conducted mainly by Canadian troops, conveyed by the Royal Navy and protected by an air 'umbrella' provided by the R.A.F. Landings were effected at six selected points, including Dieppe port. A 6-inch gun battery, a munitions dump, and an A.A. battery were destroyed. There were heavy losses on both sides.

Among the minor raids of which no official mention is usually made was that on Sark (30 October 1942), which was carried out with the object of obtaining information about suspected ill-treatment of British residents in the Channel Islands. It was then discovered that all male civilians between 16 and 70 not Channel Islanders by birth, and not permanently resident there, had been deported to Germany with their families.



4. AFRICA—COMMUNICATIONS

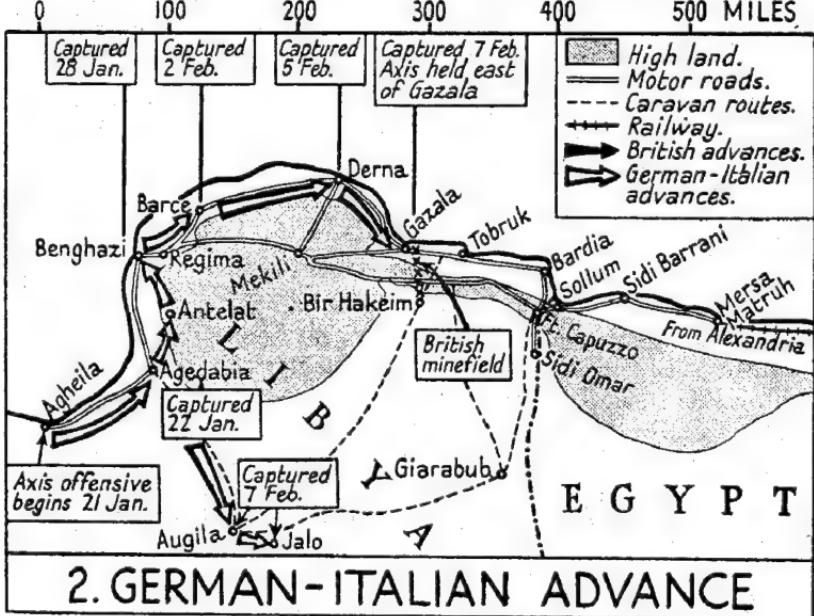
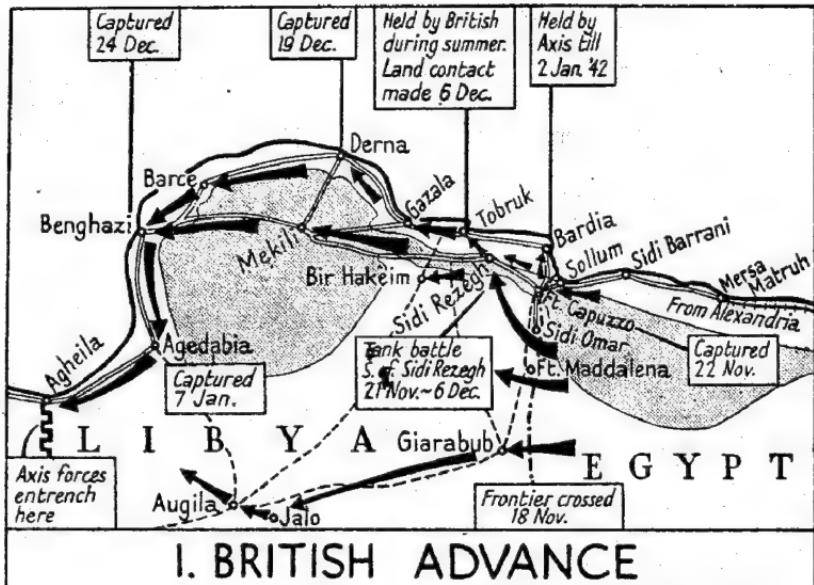
4. AFRICA—COMMUNICATIONS

THE importance of Africa to the United Nations can scarcely be exaggerated. Control of the whole of Africa's northern seaboard was an essential step towards securing mastery of the Mediterranean and opening it to merchant shipping. The role of Dakar, commanding the African side of the Atlantic Narrows, is scarcely less than that of Capetown, with the adjacent naval base of Simon's Town.

The main water, land, and air routes leading to and across Africa are shown on the map. By the Cape Route to the Middle East and India some 500,000 men and 1,000,000 tons of supplies, including 50,000 tanks, guns, and vehicles, were dispatched in 1942. It was to secure the Mozambique Channel, a vital link on this route, that the British occupied Madagascar, which under the control of Vichy was a potential if not an actual base for enemy submarines.

Part of the hazardous Cape route can be saved by travelling by rail from Lagos (or Port Harcourt) to Kano, and thence by motor road to Zinder and, via Fort Lamy, to El Obeid. There is an alternative route to Fort Lamy from Duala (French Equatorial Africa). Apart from the break between Wadi Halfa and Aswan, the journey from El Obeid to Cairo can be made by rail. From Cairo it is possible to travel by rail (the Suez Canal being crossed by a swing bridge) through Palestine and Syria to Baghdad. Though several transcontinental railways traverse the southern part of Africa, there is no through rail connection between Capetown and Cairo. From South Africa men and munitions (especially replacement parts) travel to Egypt and Libya by air.

The U.S.A.–Middle East air route from New York, via Natal (Brazil) crosses the Atlantic Narrows to either Bathurst or Dakar, and thence by Lagos and Fort Lamy to Khartoum and Cairo, where there are connections to Baghdad, India, and China. From Dakar there is also an air route to Casablanca, which, were the Germans able to close the Strait of Gibraltar, would be the principal port of entry into French North Africa.



5. THE SECOND LIBYAN CAMPAIGN

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18 November 1941 to February 1942

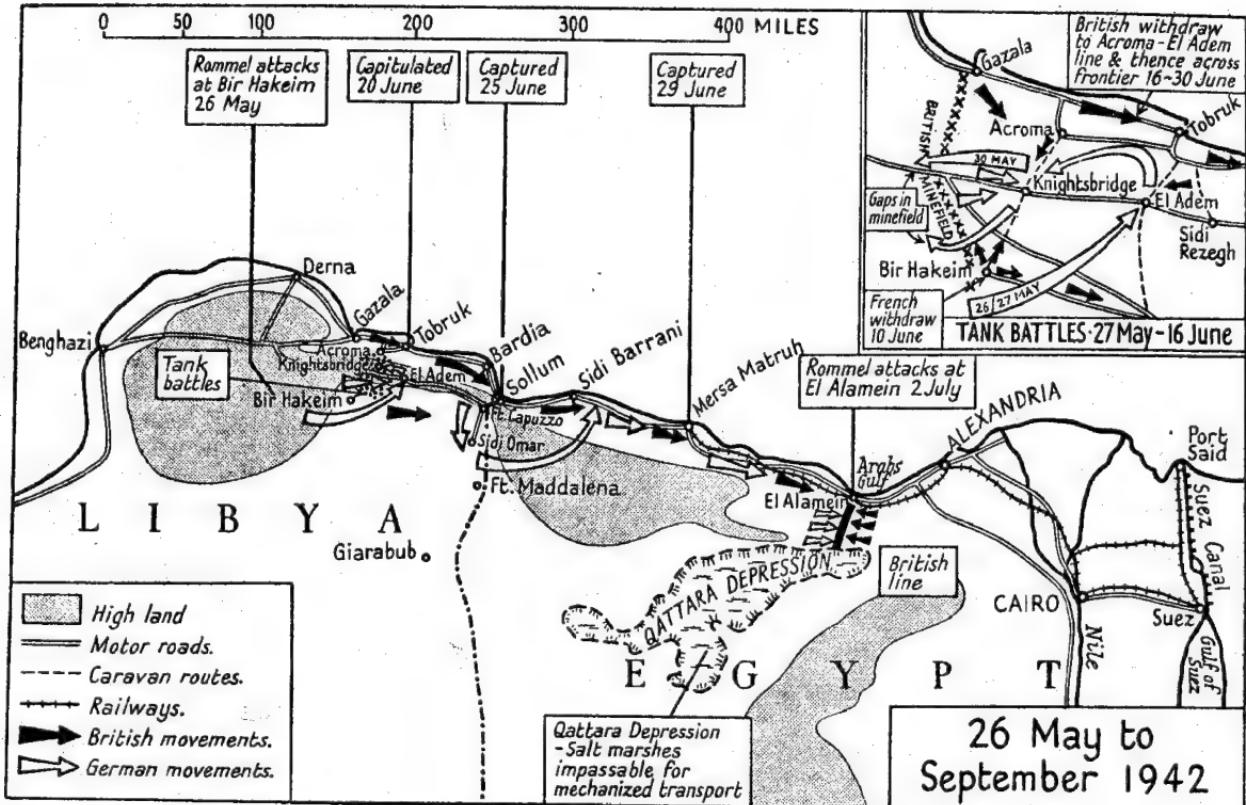
THE second Libyan campaign showed a striking resemblance to the first : again the British advanced across Cirenaica to the frontier of Tripolitania, again they fell back before Axis forces in the earlier part of the New Year.

THE BRITISH ADVANCE

The British winter offensive began on 18 November. By-passing the Axis positions at Sollum and Fort Capuzzo (commanding Halfaya Pass, where the coast road climbs up to the Libyan escarpment) Imperial troops advanced south to Sidi Omar. They then struck north-west to Sidi Rezegh (taken on 19 November, lost but later recaptured) intending to link up with forces holding Tobruk, which during the summer had received supplies by sea. A great tank battle raged in the area south of Sidi Rezegh (21 November to 6 December). At first it was indecisive, but the Germans displayed greater skill than their opponents in the speed with which they repaired damaged tanks. During the battle New Zealand forces established contact at El Duda (27 November) with those from Tobruk, though later the enemy succeeded in isolating this port before it was occupied by the British on 8 December. By this date Western Cirenaica had been cleared of Axis forces, except for Bardia, Sollum, and Fort Capuzzo, which held out until mid-January. Meanwhile the retreating enemy, after a counter-attack at Gazala (18 December), were driven south-east to Agdebia, where they fought a rearguard action, and thence to Agheila, near the frontier of Tripolitania.

THE AXIS COUNTER-OFFENSIVE

The light British forces, linked only by a long supply route with their main bases, who held Western Cirenaica were forced to retreat when, on 21 January 1942, Rommel struck from Agheila. In quick succession the German general captured Antelat (25 January), Benghazi (28 January), and Barce (2 February). Early in February Axis columns advanced beyond Derna, the British withdrawing east of Gazala. Here they held their opponents until the end of May. On balance, the British, though they had failed to destroy Rommel's forces, were in a far better position than they were in April 1941, for instead of being inside the Egyptian frontier they now held part of Eastern Cirenaica, as far as a line from Bir Hakeim to a point near Gazala, and they still retained Tobruk as a forward supply port.



6. THE BATTLE OF EGYPT (1)

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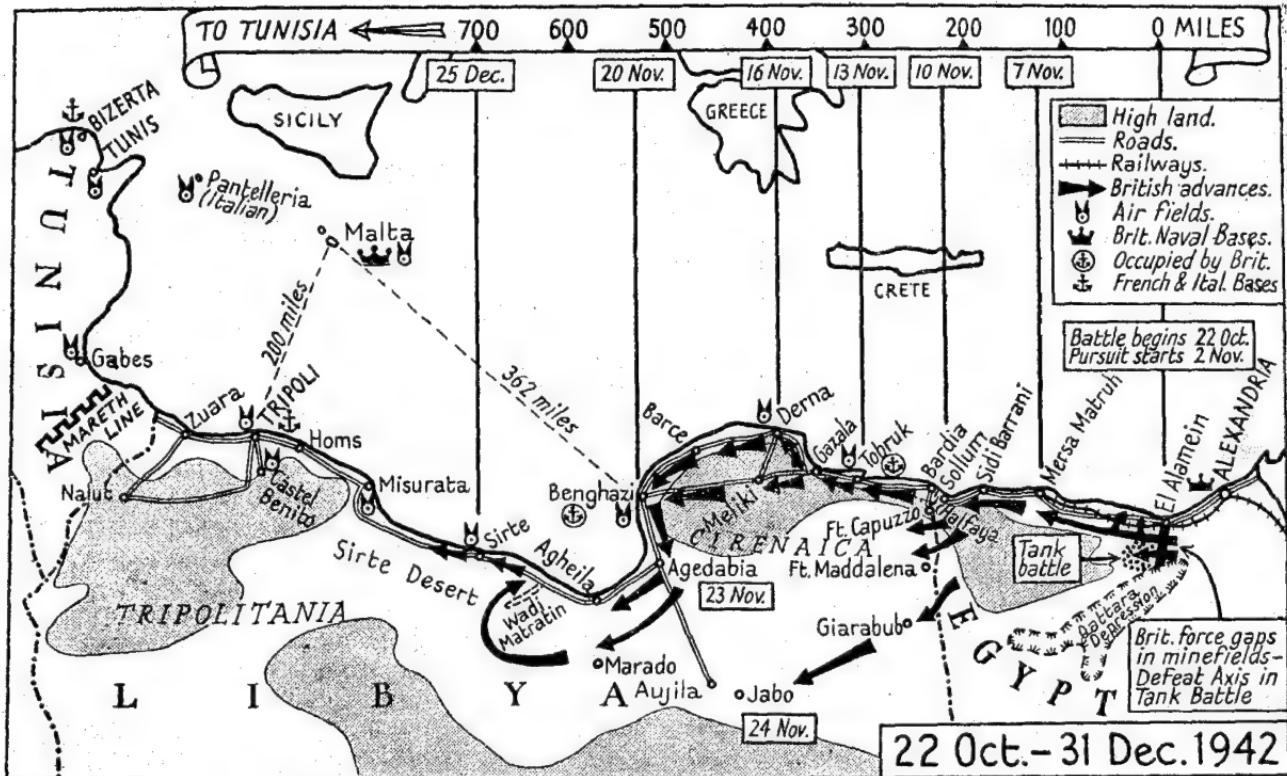
THE Battle of Egypt began on 26 May 1942, when Rommel, with strong armament and powerful air support, launched against the British positions in Libya an offensive, which in five weeks carried him to within 80 miles of Alexandria.

An attack on British positions at Bir Hakeim, and thence north-west to El Adem, developed into a large-scale tank battle waged for nearly two weeks in the area between Gazala, Acroma, and Knightsbridge, the desert track junction 12 miles south of Acroma. In the earlier stages Rommel was forced to retire westward through two gaps he had cut in the British minefield extending from Bir Hakeim to Gazala. But, using anti-tank guns and A.A. guns (employed as anti-tank guns), he assumed the offensive, and forced the British, who were holding the position between the two gaps, to retreat. On 10 June, Fighting French forces holding Bir Hakeim were also compelled to withdraw. The battle now shifted north to El Adem and thence back to Acroma, whence in the face of a threat to Gazala the British retired towards the Egyptian frontier. The garrison left to hold Tobruk capitulated on 21 June.

Meanwhile Rommel, exploiting his success,

sped eastward capturing Sollum, Fort Capuzzo, and Sidi Omar, south of which his main forces crossed into Egypt (23-24 June). Unable to retain Sidi Barrani, or the railhead of Mersa Matruh (captured on 29 June), the British took up their stand on a 35-mile front, where the coastal plain narrows between El Alamein and the impassable Qattara Depression.

On 1 July Rommel struck with all available forces, but despite a temporary break-through at one point he was held. Fierce fighting throughout July, with local gains and losses on both sides, was followed by siege warfare which continued for some weeks. On 31 August, Rommel made his final assault on the El Alamein positions. Far from his main bases, pounded unmercifully from the air, he was unable to break through, and on 2 September he withdrew westward. He had failed to occupy Egypt, but he had kept intact the major portion of his army, whose destruction was the avowed aim of General Montgomery, who had taken over the command of the Eighth Army on 18 August, and of General Alexander who on the same date became Commander-in-Chief, Middle East.



7. THE BATTLE OF EGYPT (2)—ROMMEL'S RETREAT

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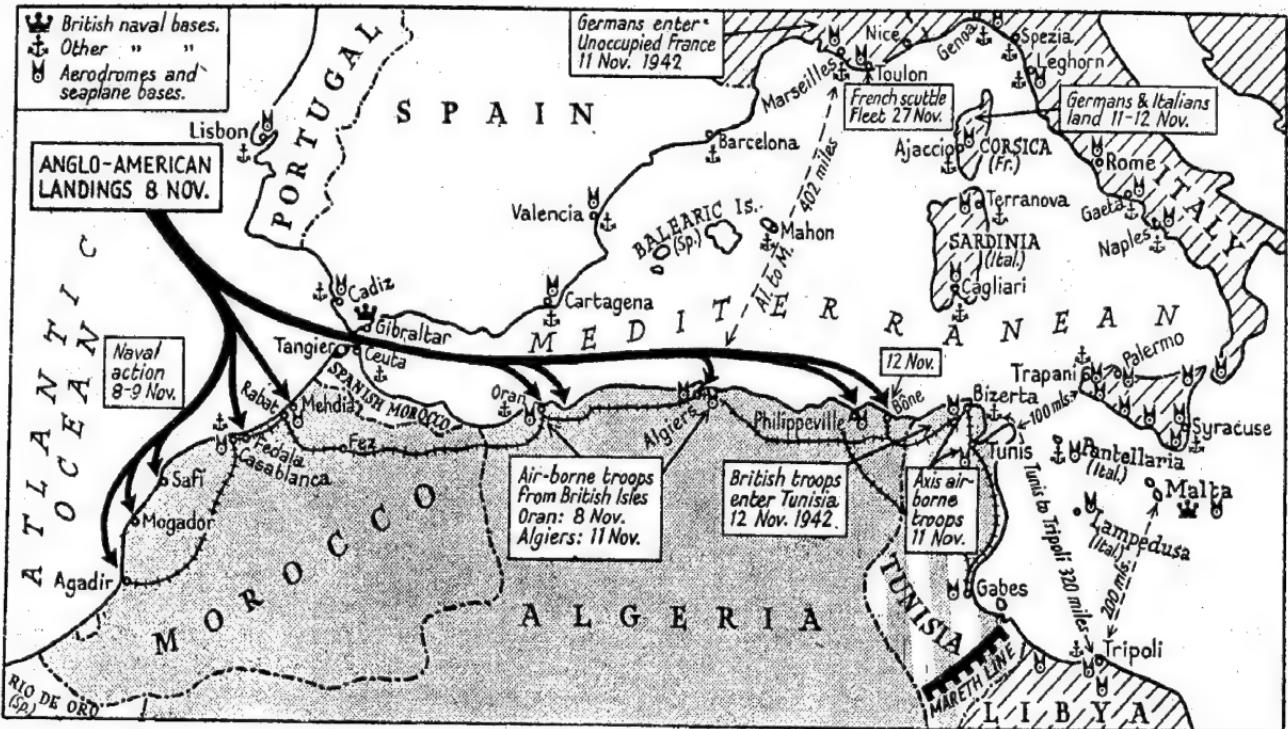
THE British took advantage of the comparative lull during September and October to train troops who were reaching Egypt to reinforce the Eighth Army, which now for the first time possessed tanks and guns—25-pounder guns—equal, if not superior, to those of the enemy. Allied air attacks were carried out on an unprecedented scale : targets as far afield as Tripoli and Benghazi were bombed as well as airfields, troop concentrations, vehicles, ships, and supply dumps. This high pressure aerial activity lasted up to and beyond 23 October, when at 10 p.m. by the light of a full moon the Eighth Army went into action.

What have been aptly described as battering-ram tactics were now employed, and, instead of attempting to encircle the enemy, a way was blasted through his minefields by 25-pounder guns which laid a creeping barrage, the infantry following close behind.

On 2 November the second phase of the Battle of Egypt began. British armoured formations passed through the gap in the minefields and in a tank battle routed the

Axis forces. By 4 November the Germans were in full retreat, having abandoned their Italian allies, some 20,000 of whom surrendered together with masses of material.

Mersa Matruh was occupied on 7 November and, with the fall of Sollum on 10 November, Egypt was freed from the danger of an Axis occupation. Within two weeks Halfaya Pass, Tobruk, Derna, Mekili, and Benghazi had all been captured, as well as 120 landing grounds. After a British attack (13 December) Rommel evacuated Agheila, his columns retiring towards Nofilia. Part of them were cut off at Wadi Matratin by a New Zealand force, which advanced from the south-west having by-passed the main Axis positions. The pursuit was retarded somewhat by minefields and by the fact that the enemy had blown up stretches of road ; but by 25 December the British had occupied Sirte, and by the end of the year they had reached the Wadi Kebir, some 50 miles farther west, having covered well over a thousand miles in two months.



8. AMERICAN AND BRITISH LANDINGS IN FRENCH NORTH AFRICA

8. AMERICAN AND BRITISH LANDINGS IN FRENCH NORTH AFRICA

ON 8 November 1942 American and British troops, under General Eisenhower (U.S.), landed in French North Africa. They were conveyed in 500 transports, escorted by 350 naval units, mainly British, the greatest armada so far assembled for one operation. There was some French resistance, but the landings themselves were opposed only at Algiers and Oran, and by a Vichy fleet off Casablanca, which was defeated, losing all its destroyers and the battleship *Jean Bart*. Parachutists seized communications and airfields at Oran and Algiers (two), where troops flown from England, who arrived on 11 November, left for Bône.

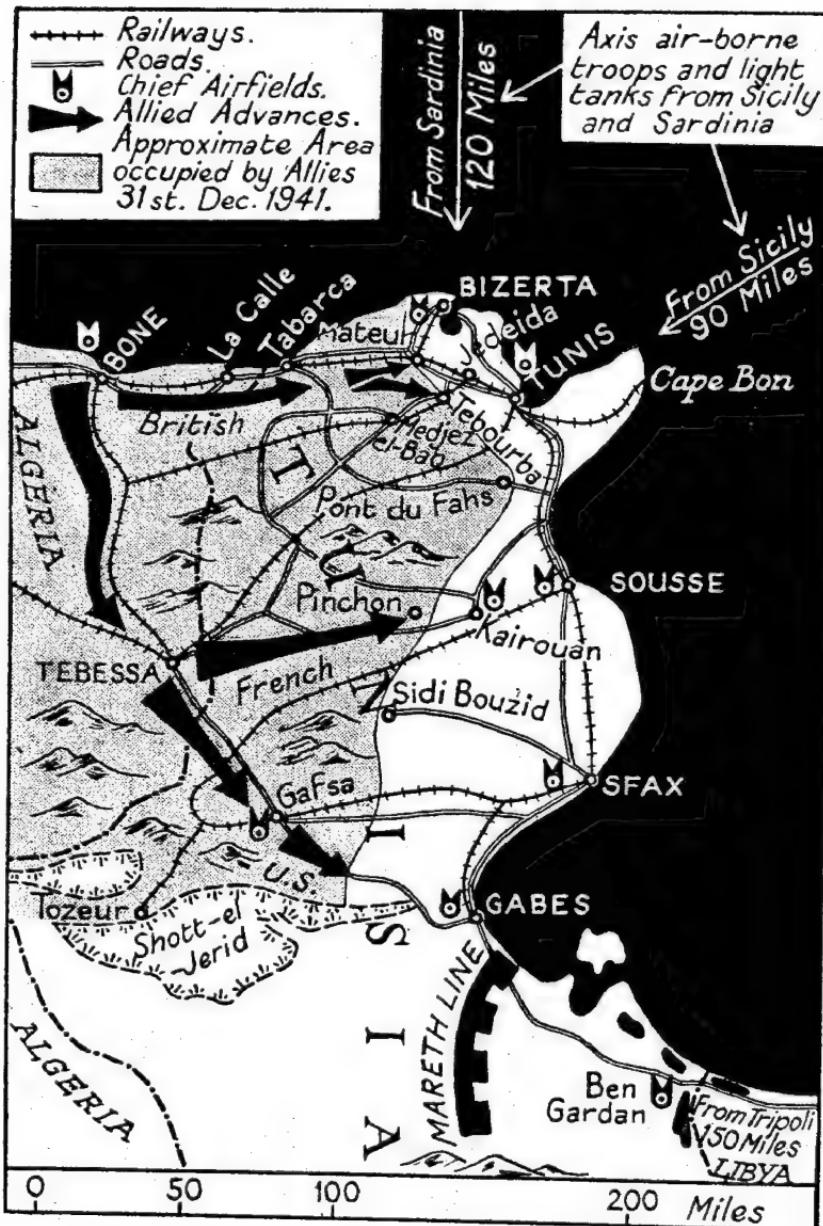
On 11 November, the advent of Axis troops (dispatched by sea and air from Sicily and Sardinia) at Bizerta and Tunis imposed a check on Allied plans to occupy Tunisia. On 11 November also the Germans entered Unoccupied France.

General Eisenhower came to an agreement with Admiral Darlan, who had been taken prisoner at Algiers, whereby the latter became High Commissioner for French North Africa. The pact was much criticized in Allied circles because of Darlan's former collaboration with the Germans, and his bitter anti-British atti-

tude since the Armistice. However, as a result of the agreement : (1) fighting ceased throughout Algeria and Morocco, French troops in these areas joining the Allies ; (2) French West Africa agreed to co-operate with the Allies.

The problems confronting the Americans and the British were military, economic, and political. The first (apart from Tunisia) was quickly solved, the second yielded gradually to treatment, the third persisted. When, on 24 December, Admiral Darlan was assassinated he was succeeded by General Giraud, C.-in-C. of the French forces in North Africa, who set up an administration which has been described as a conservative oligarchy. Apart from opportunists it was an uneasy mixture of men like himself, intensely patriotic and not unwilling to co-operate with the Fighting French under General de Gaulle, and of pro-Vichy officials, who detested the Third Republic, were resentful of the Allied occupation, and were opposed to the Fighting French.

Their experience in French North Africa should help Allied administrators to solve more quickly similar political problems that sooner or later are bound to confront them in the liberated countries of continental Europe.



9. PRELIMINARY ROUNDS IN TUNISIA

9. PRELIMINARY ROUNDS IN TUNISIA

TUNISIA is a mountainous and rolling country, a land of ridges and valleys, margined by a coastal plain. There are a number of good roads and railways, though the gap in the line between La Calle (Algeria) and Tabarca should be noted. The summers are hot and dry, the winters moderately wet, the rain falling in torrential showers that fill the wadis and render the roads temporarily impassable.

On 11 November, Axis air-borne and sea-borne troops from Sicily and Sardinia began to arrive in Tunisia, where they occupied Tunis, the naval base of Bizerta, Sousse, Sfax, and Gabes, all of which were subsequently subjected to frequent bombing by Allied aircraft, operating from bases in Algeria.

British troops, supported by French forces, began to cross the Tunisian frontier on 12 November, while parachutists landed at various points deep in the country.

The main Allied advances were from the railhead of La Calle along the sinuous mountain road to Tabarca, where they thrust (1) towards Mateur ; (2) towards Jedeida and Tebourba, captured but later occupied by Axis forces, and (3) to Pont du Fahs, held by the Fighting French. From Bône other forces proceeded to the railway junction of Tebessa (Algeria), whence they advanced (4) towards Pinchon (25 miles west of Kairouan, with an important airfield), and (5) towards Gafsa (airfield), whence American troops advanced, on December 30, to within 40 miles of Gabes, the most southerly port in Tunisia, situated on the edge of the gap between the Mediterranean and the salt marsh known as the Shott-el-Jerid.

Thus by the end of the year the Allies had occupied a considerable portion of Tunisia, but they had failed to secure the corridor along the east coast, any of the chief ports, and few of the major airfields, the lack of which was bound to handicap future operations.

The German objectives were obviously (1) to keep open the coastal corridor so that they could link up with Rommel's forces retreating from Tripoli, and (2) to hold on to Tunisia as long as possible in order to stave off an Allied invasion of continental Europe. In short, the Axis were fighting delaying actions using offensive tactics, the Allies were fighting against time, which was not on their side.



18. THE MEDITERRANEAN

10. THE MEDITERRANEAN

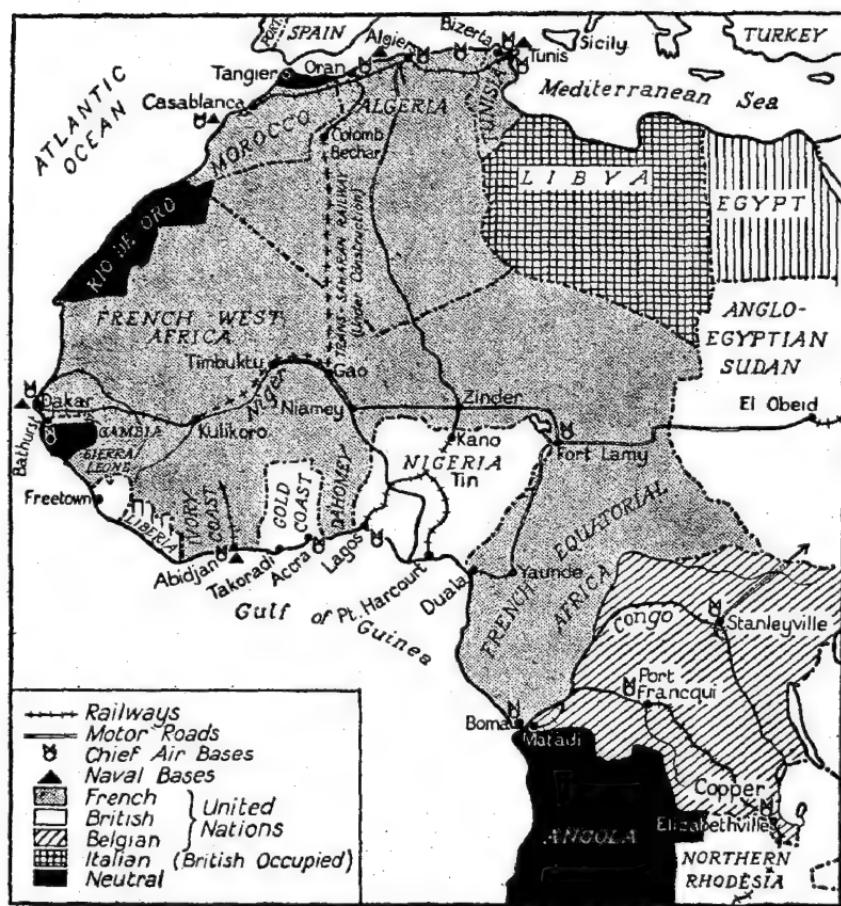
OCCUPATION of the northern seaboard from France to Greece, and of Sardinia, Sicily, and Crete, coupled with their numerical superiority in the air, enabled the Axis powers—despite British naval supremacy—to dominate the greater part of the Mediterranean. Britain's west to east life-line from Gibraltar via Malta to Suez, 1,926 miles, (equivalent to the distance from the British Isles to Newfoundland) was almost five times the length of the longest route between Axis ports in Mediterranean Europe and those in North Africa. Gibraltar and the Suez Canal gave Britain command of both the western and eastern entrances to the Mediterranean, but the vital Sicilian Channel, connecting the Western and Eastern Basins, was, since Italy entered the war, virtually controlled by enemy aircraft. During 1942 essential convoys managed to reach beleaguered Malta, but only with the loss of three cruisers, nine destroyers, and two aircraft carriers, not to mention merchant ships. And so hazardous was the Mediterranean passage that supplies for Egypt and the Middle East were of necessity dispatched by the Cape route (see 4).

When, in July 1942, Rommel threatened Egypt it appeared possible that the British might have

to vacate the Mediterranean, but in November 1942 the advance of the Eighth Army through Cirenaica into Tripoli dealt a blow to the Axis power in the Eastern Basin. It also enabled Allied convoys from Egypt to reach Malta, and at the same time exposed enemy-occupied Crete to air attacks. Similarly the Anglo-American landings in North Africa greatly strengthened the hold of the Allies on the Western Mediterranean.

At the close of 1942 the position of the United Nations in the Mediterranean was more favourable than at any time since Italy became a combatant. However, it was not wholly favourable, for Germany and Italy now held the Mediterranean coast of France, and by their occupation of the naval base of Bizerta, as well as airfields in Tunisia, Sicily, and Sardinia, they exercised a stranglehold on the Sicilian Channel.

Given control of Tunisia, Allied convoys, protected by shore-based fighter aircraft, should be able to use the Mediterranean route to Egypt and the Middle East. Moreover, such control is an essential preliminary to an invasion of Italy or some other area in Mediterranean Europe.



II. NORTH AND WEST FRENCH AFRICA—
RESOURCES

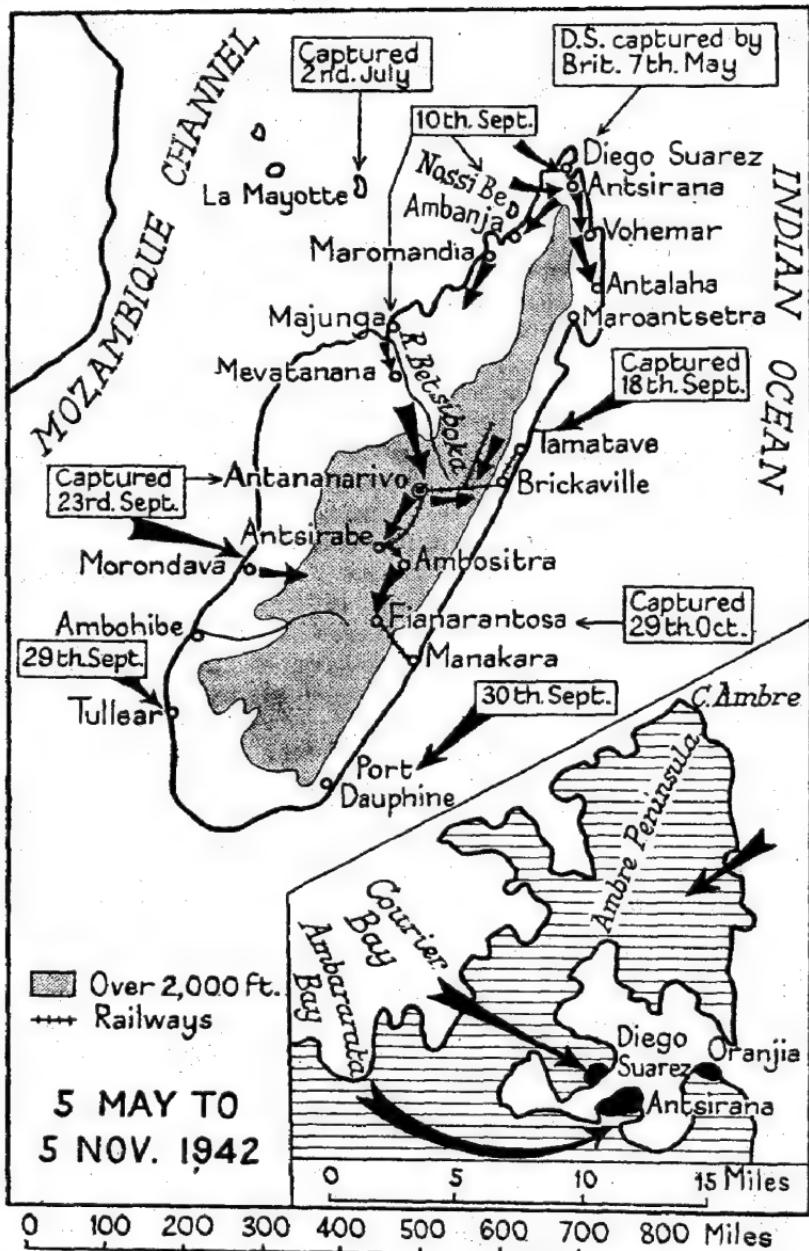
II. NORTH AND WEST FRENCH AFRICA

RESOURCES

APART from their strategic importance, with Bizerta commanding the Sicilian Channel, Algeria and Morocco flanking the Strait of Gibraltar, and Dakar dominating the Atlantic Narrows, the accession of French North Africa and French West Africa to their cause brought additional economic strength to the United Nations. Except for Eastern Tunisia, Spanish Morocco, and Rio de Oro, and Portuguese Guinea and Mozambique, and the western part of Tripolitania, the whole of Africa was under Allied control by the end of 1942.

Normally, French North Africa is not only self-sufficient in food stuffs, but it has a surplus of cereals, olive oil, citrus fruits, dates, vegetables, and wine for export. Even more valuable are the exports of phosphates, iron ore, lead, zinc, and those steel-hardening metals, cobalt and manganese, both of which are mined in Morocco. Until the Anglo-American occupation of Algeria and Morocco these surpluses found their way to Vichy France and Germany, where, for example, phosphates were in great demand because of the lack of fertilizers. Owing to the locust-like policy of Vichy, French North Africa had been stripped almost bare when the Allies took control. In return for foodstuffs and coal, which is lacking, the French colonies are now supplying Britain and America with phosphates and other raw materials required for their war industries.

French West Africa and French Equatorial Africa, like the British colonies of Nigeria, the Gold Coast, and Sierra Leone, and the Belgian Congo, yield large quantities of palm-oil and palm kernels, as well as ground nuts, also rich in oil, all of which will prove a useful addition to the fat supplies of the United Nations. A relatively small amount of rubber is obtained from the Belgian Congo and French West Africa, while the former country is an important producer of copper, and, like Nigeria, of tin.



12. MADAGASCAR

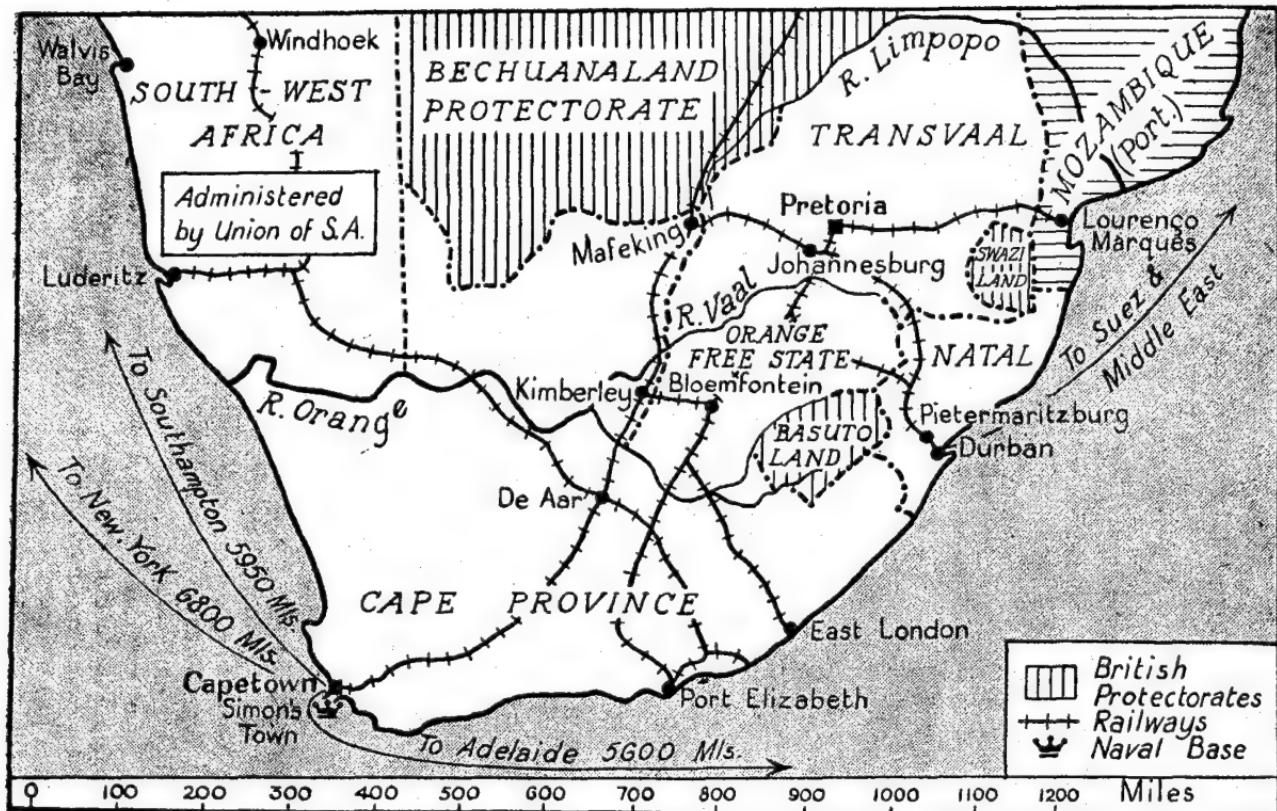
MADAGASCAR, the third largest island in the world, consists mainly of a plateau with an average height of from 2,000 to 3,000 feet. Agriculture and cattle-rearing are the chief occupations.

Separated from the mainland of Africa by the Mozambique Channel, 350 miles wide at its narrowest point, the island commands the route from Capetown to the Middle East and India. To frustrate Japanese attempts to seize it Madagascar was occupied by British and South African forces, with strong naval and air support. No Fighting French troops were employed.

Operations were conducted in two phases. At dawn on 5 May 1942 a British force arrived in Courier Bay. The French authorities refusing to surrender, troops were landed at Courier Bay and Ambararata Bay, whence striking east they captured the naval dockyard and town of Antsirana on the night of 5 May, and Diego Suarez the next day.

Though it was made clear that there was no intention of interfering with the French status of the island, Vichy officials, still in control in the south, refused to co-operate with the British, and further operations began on 10 September. Landings were made on Nossi Be Island, and at Majunga and Morondava; while from Diego Suarez units struck southwest to Ambanja, and south to Antalaha. The main advance was made from Majunga, whence troops proceeded along the main road up the Betsiboka Valley reaching the great bridge over the river on 11 September, and Antananarivo, the capital, on 23 September, where they were joined by units, who had landed at Tamatave, on the east coast. Continuing south from the capital, troops occupied Antsirabe (5 October) and Ambositra (14 October). On 29 October they reached Fianarantsoa, having covered the 260 miles from Antananarivo within five weeks. Port Dauphine and Tullear were occupied by the end of September. An armistice was granted on 5 November, and on 10 November General Legentilhomme (a representative of the Fighting French) was appointed High Commissioner.

Apart from a few short actions there was during the campaign little active opposition by French troops, but much delay was caused by hundreds of road blocks and bridges that had been destroyed.



13. SOUTH AFRICA'S PART IN THE WAR

13. SOUTH AFRICA'S PART IN THE WAR

THE Union of South Africa has a population of some ten millions, of whom only two millions are Europeans. The Africans are mainly Bantus, about half being engaged in pastoral and agricultural pursuits, living in kraals under their chiefs. Some work on farms owned by whites, some in the mines, and some as 'unskilled labourers' in the towns. But, like the negroes of the United States, they remain a non-privileged race. In addition there are about a quarter of a million Asiatics, principally Indians, and three-quarters of a million 'coloured peoples' of white and coloured descent.

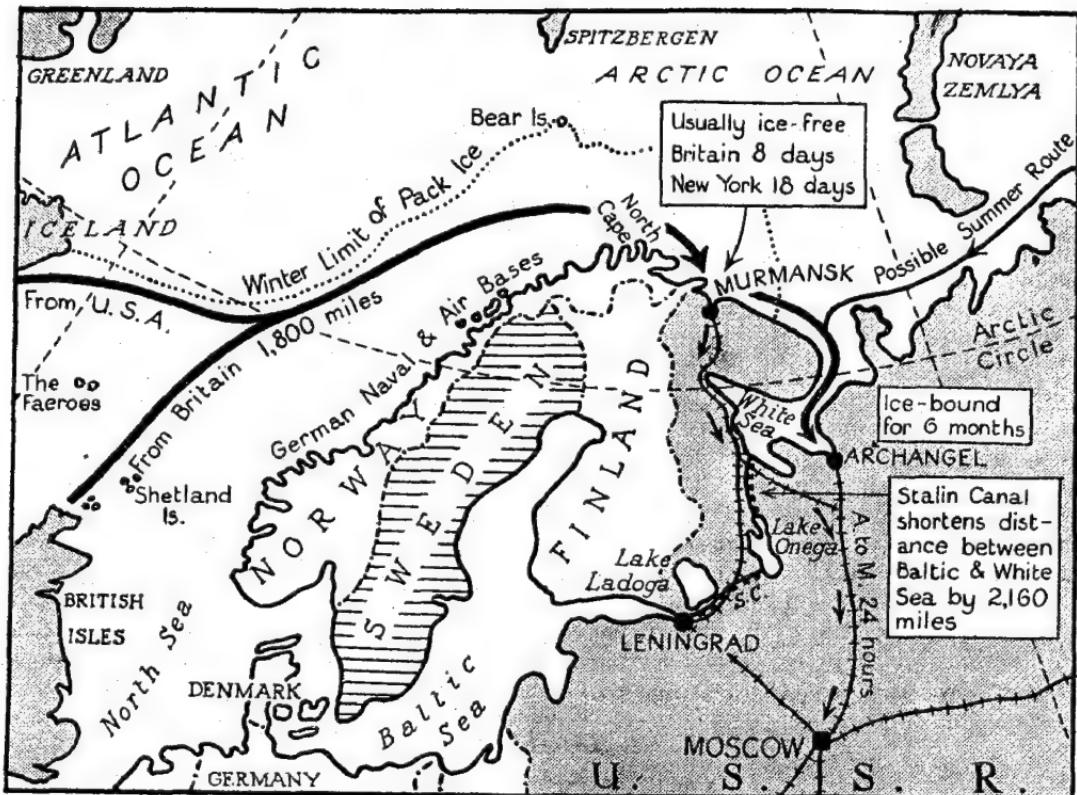
The Europeans are chiefly of British stock, or are Boers of Dutch origin. Racial differences are accentuated by differences of occupation and language. Most of the British are concerned with commerce, mining or finance, the majority of the Boers are farmers. The former speak English, the latter Afrikaans. Political divisions run principally on racial lines, though not entirely so, for many of the leaders of the Government are Boers, notably Field-Marshal Smuts, who ranks with Roosevelt, Churchill and

Stalin as one of the outstanding leaders of the United Nations.

But the fact remains that South Africa is a divided country, with a majority supporting the war, and a minority bitterly opposed to it. Yet though there is no conscription, South Africans, Boer and Britain alike, have fought with great distinction in Abyssinia, Madagascar, and Libya.

South Africa mines more than half the world's gold, which accounts for 90 per cent of her exports, thus playing an all-important part in the economy of the country. Mainly for this reason it has been found impracticable to reduce the output of gold to make available more labour for direct war production.

There are extensive deposits of coal and iron ore, some of which is mined in the vicinity of Pretoria, where the steel capacity of the great Iscor Works has recently been doubled. There are also deposits of copper and manganese. Not only is South Africa producing vast quantities of guns, armoured vehicles, shells, and bombs, but she is also acting as a great repair base for the Eighth Army and the forces in the Middle East.



14. ROUTES TO RUSSIA. (1) THE NORTHERN ROUTE

14. ROUTES TO RUSSIA

I. THE NORTHERN ROUTE

WITH the Baltic Sea controlled by Germany, the only practicable northern route by which supplies from Britain and the United States can reach the U.S.S.R. is that leading to Murmansk and Archangel. Thanks to the warm waters of the Atlantic Drift, popularly known as the Gulf Stream, Murmansk is usually ice-free throughout the year, though the White Sea port of Archangel is blocked with ice from October until early Spring.

Convoys traverse the precarious sea-lane between Norway and the pack-ice, which in summer lies north of a line running from Greenland, via Spitzbergen, to Novaya Zemlya, but in winter swings south (see map) to within 250 miles of North Cape. The many fiords that indent Norway's coast shelter enemy battleships, cruisers, destroyers, and U-boats ready to harry ships bearing supplies to Russia. The airfields are bases for hostile aircraft.

Especially hazardous are the waters off North Cape and the Barents Sea approaches to Murmansk in which area the sun never sinks below the horizon in summer, while in winter daylight, or rather twilight, is limited to some three hours. During the summer months convoys are especially exposed to enemy naval and air attacks. In the summer of 1942, for example, 34 out of 38 merchant ships in one convoy were sunk by enemy action mainly in the North Cape-Barents Sea area. Winter limits hostile activities. On 31 December 1942, British destroyers, protecting a convoy, engaged and put to flight a much stronger German naval squadron. In this action one enemy destroyer was sunk and one cruiser badly damaged, while the British lost two destroyers. But the convoy arrived at Murmansk without a single merchant ship in it having been damaged. More vital supplies had reached Russia.



15. ROUTES TO RUSSIA. (2) THE PERSIAN GULF ROUTE

15. ROUTES TO RUSSIA

2. THE PERSIAN GULF ROUTE

UNTIL supplies from Britain and the United States destined for south-east Russia can again be sent through the Mediterranean they must be dispatched via the Cape to Persian Gulf ports, and then overland for more than a thou-

sand miles. Examples of the increased distance involved in the longer sea passage to south-east Russia and the Middle East are given in the table below :

	Direct to Black Sea Ports.	Via Cape to Persian Gulf.	Via Suez to Persian Gulf.	Direct to Suez.	Via Cape to Suez.
Southampton	3,500 miles.	11,200 miles.	6,400 miles.	3,000 miles.	11,600 miles.
New York	5,700 miles.	12,000 miles.	8,500 miles.	5,050 miles.	12,220 miles.

From the Persian Gulf ports there are a number of routes to the U.S.S.R. of which the first outlined below is by far the most important.

(1) From *Bandar Shapur* goods are sent by the 870-mile *Trans-Iranian Railway*, a single track line with sidings every ten miles, which runs through mountainous country, via Teheran, to Bandar Shah, where they are shipped across the Caspian Sea. Recently the terminal ports of the *Trans-Iranian Railway* have been greatly improved to cope with the steadily increasing traffic. There are alternative routes from Teheran, via Kazvin; (a) to Pahlevi, on the Caspian, and (b) by motor road to Tabriz (*Trans-Caucasia*), a route which will soon be supplemented by the railway now under construction.

(2) From *Basra* supplies are forwarded either by the Tigris or by rail to Baghdad and thence either (a) by rail to Khanaqin and by road, across the Paytak Pass, to Kazvin, or (b) by rail to Mosul and thence by road to Tabriz.

(3) From *Bushire*, where goods have to be trans-shipped from ocean-going vessels to shore by lighters, supplies are forwarded by road to Teheran.

(4) From *Bandar Abbas* goods travel by road, via Kerman, to Teheran.

Supplies from India are sent by rail to Zahidan (Dizzab) and thence by a road, recently improved, through Meshed, across the frontier to Ashkabad, and by rail to the Caspian port of Krasnovodsk.



16. THE INVASION OF RUSSIA

16. THE INVASION OF RUSSIA

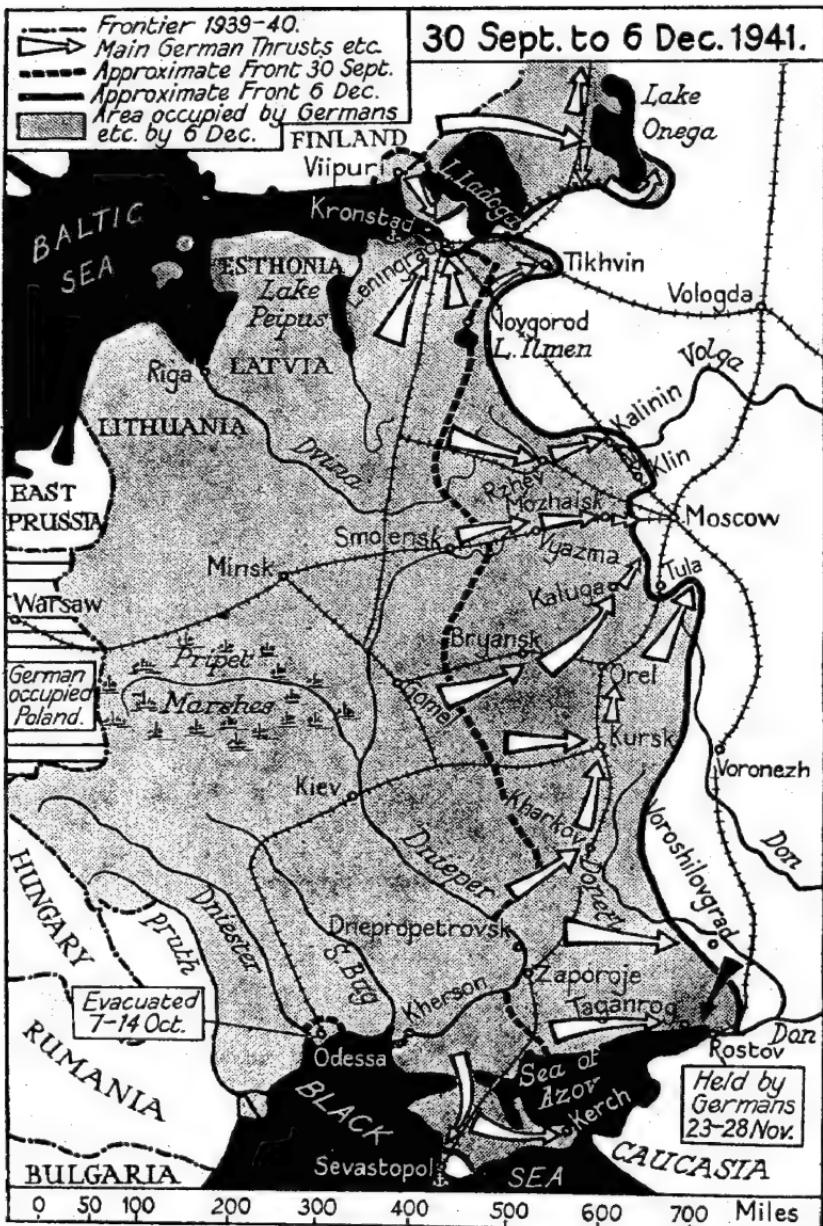
1 to 30 September 1941

THE German attacks on the *Ukraine*, which began during August, were intensified in September. Kiev, the capital of the Ukraine, was threatened by a huge pincer movement from (a) the north-east, where the enemy had thrust from Gomel to Konotop, on the Kiev-Kursk railway, and (b) the south-east, where on each side of Kremenchug the Germans had forced a passage across the Dnieper. As the claws of the pincers began to close on Kiev, the Russians to avoid encirclement evacuated the city, which the Germans entered on 19 September. Exploiting their success the enemy crossed the Dnieper at a number of fresh points, and began to overrun the industrial area of the Donetz Basin, one of their main thrusts being north-east from Kremenchug to Poltava. In the south of the Ukraine the Germans advanced east from Kherson, by-passed the Perekop Isthmus thus isolating the Crimea, and reached the shores of the Sea of Azov.

On the *Central Front*, where the offensive against Moscow continued unabated, the Germans advanced on both sides of Smolensk thus straightening the salient of which this town had formerly been the apex.

On the *Leningrad Front* the enemy made some progress on the west, but more on the south where they drew near the approaches to the city. However, at the end of September, the railway east to Vologda was still in Russian hands and afforded a somewhat indirect means of communication with Moscow.

North-west of Leningrad the Finns, who had already reached Lake Ladoga, advanced along its northern shore to Lake Onega, where they struck at the railway running north to Murmansk, Russia's vital ice-free port. But on the Murmansk sector itself enemy attacks were held.



17. THE INVASION OF RUSSIA

17. THE INVASION OF RUSSIA

30 September to 6 December 1941

At the end of September the Germans staged a new offensive aimed primarily at Moscow, Leningrad, the Eastern Ukraine, and the Crimea.

On the *Central Front* the enemy made a three-pronged drive towards Moscow (the outer prongs being designed to encircle the capital) : (a) from Smolensk to Vyazma (taken on 13 October) ; (b) from Rzhev to Kalinin, and (c) from Kaluga, occupied after the fall of Orel and Bryansk. After a lull imposed by weather conditions, alternating rain and frost retarding movement, attacks on an enormous scale were again launched on Moscow in mid-November : (a) on the Russian right flank in the Klin area ; (b) on the left flank from the neighbourhood of Tula ; and (c) in the centre from Mozhaisk. But though the enemy approached within 30 miles of Moscow they failed to capture it.

Meanwhile on the *Leningrad Front*, the Germans by cutting at Tikhvin the railway east to Vologda destroyed the last rail link with Moscow and so succeeded in isolating the city. On the *Finnish Front* the enemy suffered considerable losses whilst attacking the railway to Murmansk.

On the *Southern Front* Kharkov fell on 24 October. Meanwhile the garrison of Odessa had been evacuated by sea during the second week in October. About 23 October the Germans crossed the Perekop Isthmus into the Crimea and thrust (a) south towards Sevastopol, and (b) east to Kerch (captured on 16 November). Having taken Taganrog on 19 October, the invaders continued their drive along the coast of the Sea of Azov and entered Rostov on 23 November only to be ejected on the 28th by the Russians who swept down from the north-east.

The Russian success at Rostov was the prelude to a major counter-offensive which began on 6 December. It was well timed, for the enemy, having failed to deal Russia a knock-out blow, were now faced with the rigours of winter. By their inability to take Moscow and Leningrad, German troops in these areas were without good winter quarters. Many were inadequately clad, and transport problems became increasingly difficult, not so much because of the snow, but because the German internal combustion and steam engines had not been designed to stand up to the extreme cold.



18. THE RUSSIAN COUNTER-OFFENSIVE

18. THE RUSSIAN COUNTER-OFFENSIVE

6 December 1941 to mid-June 1942

EARLY in December the Russians embarked on a counter-offensive along the entire front from Leningrad to the Sea of Azov. Having already driven the enemy out of Rostov (28 November) they turned (6 December) on the forces investing *Moscow*. Before the end of the month they had retaken Kalinin (15 December) and Kaluga (30 December) and had forced back the Germans from the vicinity of Tula almost to Orel. On the *Leningrad Front*, the Russians by capturing Tikhvin restored communications (via Vologda) with Moscow. In the *Crimea*, Sevastopol withstood German assaults, Kerch was recovered, and Feodosia occupied (until 19 January).

January to March saw a continuation of the Russian offensive. On the *Central Front*, Mozhaisk (threatened by a pincer movement from Staritsa to the north and Kaluga to the south) fell on 19 January. In February the Russians pushed (a) north-west to a line immediately east of Lake Ilmen, Staraya Russa (almost encircled) and Velikie Luki, and (b) south-west to a line running from Dorogobuzh towards Orel. The Germans, however, managed to hold a large pocket between Rzhev and Vyazma. Farther south Marshal Timoshenko's armies drove back the Germans north and south of Kharkov, capturing their supply base of Lozovaya, 35 miles from Dnepropetrovsk.

The Russians kept up their pressure until March, but from then onwards the Spring break-up imposed a lull and the front remained more or less stationary. During their counter-offensive the Russians had inflicted heavy punishment on the Germans and had liberated large areas, but, outside the Central Front, they had recaptured few large towns. Strongly fortified, the towns formed bastions in the German defensive system of 'hedgehogs'—self-contained units, sited to command channels of communication upon which intensive fire could be directed on opponents passing along their flanks, and with such exceptionally strong all-round defences that they could stand up to modern offensive operations.

The Russians attacked Kharkov in May. But though they failed to capture the city, the Battle of Kharkov (14-17 May) disorganized German plans and delayed their summer campaign. In May the enemy having forced the Russians to withdraw from the whole of the Kerch Peninsula, subjected the Crimean naval base of Sevastopol to increasing assaults, which proved the forerunner of their summer offensive.



19. RUSSIA—THE SUMMER CAMPAIGN 1942

19. RUSSIA—THE SUMMER CAMPAIGN 1942

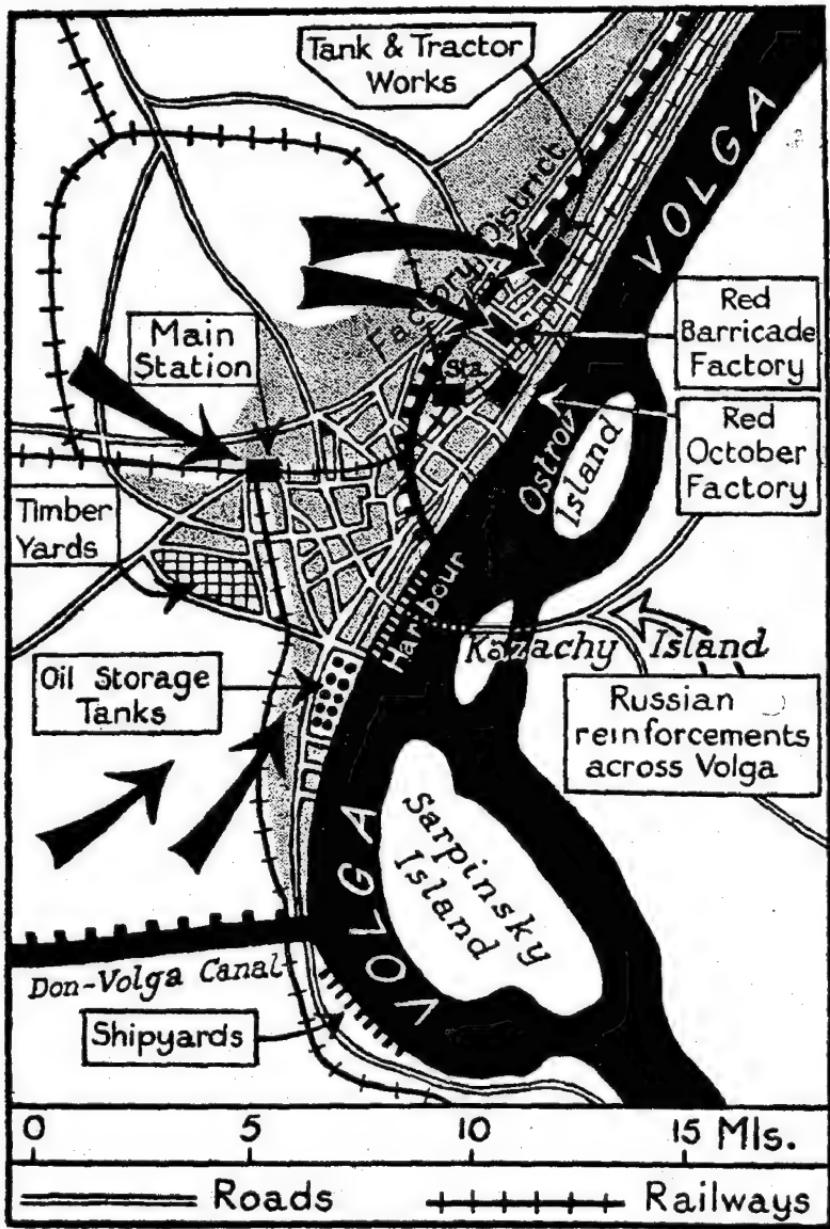
10 June to 19 November

THE Germans opened their campaign early in June. Their main drive was towards the south-east, where by advancing across the lower Don to the lower Volga they hoped, having gained the industrial and grain-growing area of the Ukraine, to split the Russian forces, advance into Caucasia, and secure the oilfields, the chief Soviet source of supply.

On 10 June the Germans struck in the Kharkov area and on 29 June they attacked along a 200-mile front from Kharkov to Kursk. Then they advanced towards Voronezh, where in a battle lasting from 7-22 July they were held by the Russians.

Meanwhile the Germans also drove (*a*) south-east into the Don elbow, and (*b*) south across the Donets Basin. To avoid encirclement by numerically superior forces, Marshal Timoshenko evacuated Rostov (27 July), and withdrew with the bulk of his army into, and across, the Don elbow, leaving the remnant of his forces to defend Caucasia. As it was impossible for him to leave an unbeaten Russian army upon his left flank, von Bock, the German commander, pursued Timoshenko. By mid-August he had forced the Russians back across the Don towards the Volga, which, advancing from Kotelnikovo, he reached on 11 September at a point south of Stalingrad. For three months the Battle of Stalingrad raged with unabated violence, but the city was still holding out when on 19 November the Russian winter offensive began.

Now turn to Caucasia. Having taken Rostov, the invaders, reinforced by German-Rumanian troops freed from the Crimea after the fall of Sevastopol (1 July), entered Caucasia. They advanced successively (*a*) across the railway from Novorossisk to Stalingrad; (*b*) across the Kuban River, capturing the Maikop oilfields (9 August), already destroyed, and Armavir, an oil-refining centre; (*c*) into the Caucasian foothills and the spa district (useful as winter quarters), where they occupied Georgievsk (15 August) and Mosdok; and thence (*d*) to the foot of the main ranges of the Caucasus, whence roads, e.g. the Georgian Military Road over the Daryal Pass, led to Trans-Caucasia. Having fought stubborn rearguard actions during their successive withdrawals, the Russians, by making a stand on the Terek River, prevented the enemy from capturing Grozny (oilfields), and brought them to a halt by the third week in November.



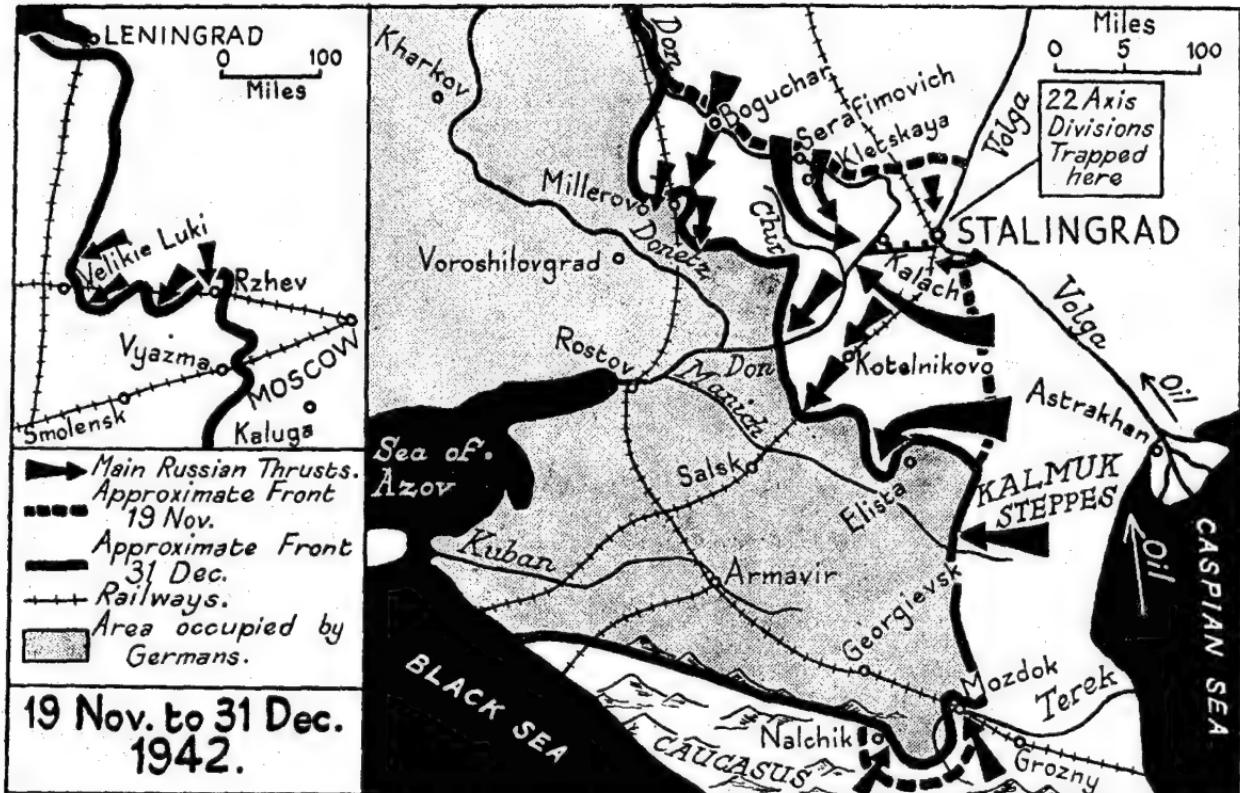
20. THE BATTLE OF STALINGRAD

20. THE BATTLE OF STALINGRAD

THE Battle of Stalingrad, one of the decisive battles in the Second World War, will probably rank as the greatest battle of encirclement since Hannibal's triumph at Cannae. It began in mid-August, when the Germans by sheer concentrated and overwhelming force drove the Russians across the Don towards the Volga, only 40 miles distant. But long before their armies reached its outskirts (9-11 September) the enemy (thanks to their numerical superiority in the air) had laid the greater part of Stalingrad in ruins.

From September to November the battle continued with unabated violence. Normally German assaults by infantry and tanks were preceded by attacks by bombers and dive-bombers. Gradually the Germans penetrated into Stalingrad, the Russians resisting street by street, house by house, yard by yard. The first German attack came from the south. Later the enemy secured the main railway station, and attempted unsuccessfully to advance to the Volga with the object of splitting the city into two parts. Especially concentrated were the assaults on the Factory Area, where the enemy captured the Dzerzhinsky Tank and Tractor Works, the Red Barricade Factory, taken on 18 October after an attack by two divisions supported by 60 tanks, and the Red October Factory from which they were, however, ejected. The defenders had to rely on supplies brought across the steppes from a railway, 100 miles east of the mile-wide Volga, over which they had to be transported in the face of enemy fire.

Following a series of assaults which, beginning on 12 November, lasted continuously for 5 days and 5 nights, there was a lull. Then on 19 November, the date on which the Russians launched their winter offensive, relieving armies from the north-west and the south gradually drove back and encircled the enemy divisions investing Stalingrad. While this major pincer movement was being carried out, Russian forces in the vicinity of Stalingrad penetrated into the northern suburbs and relieved the pressure on the Factory Area. Others having crossed the Volga by night, occupied commanding heights to the south-west of the city, which, after besieging for five months, the Germans had failed to capture. Between 19 November and 31 December, the German losses in the Stalingrad area alone included 95,000 killed, 72,000 captured, 1,792 tanks and 2,235 guns captured, and 937 tanks and 725 aircraft destroyed.



21. RUSSIA LAUNCHES HER SECOND WINTER OFFENSIVE (1942)

21. RUSSIA LAUNCHES HER SECOND WINTER OFFENSIVE (1942)

RUSSIA launched her offensive during the third week in November when, though the rivers were frozen and the frost had hardened the ground, the snow had not yet piled up into those huge drifts that in the latter part of winter make transport difficult.

The Russians' main blows were delivered in the Don-Volga area, but they also attacked (a) on the Central Front in the direction of Velikie Luki, and (b) on the Caucasian Front.

In the Don-Volga area the offensive (up to the end of the year) was marked by three phases. (1) On 19 November the Russians started a pincer movement with the object of encircling the enemy divisions before Stalingrad. Advances were made (a) from the south, and (b) in great strength from the north-west, where, having forced the Don at, and also 15 miles below, Serafimovich, the Russians struck south, then east, taking Kalach (22 November), with the support of other troops from the Kalmuk steppes. The giant pincers closed. By the end of November the twenty-two German and satellite divisions that had been investing Stalingrad were trapped between the Don and the Volga, where, after the failure of a German counter-attack at Kotelnikovo (12 December) they faced elimination.

(2) Armies that had crossed the Don at Serafimovich, Boguchar (south-west of Voronezh), and at other points, advanced south, and by-passing Millerovo thrust along the railway towards Rostov. This by-passing of Millerovo, and incidentally of many German 'hedgehogs' marked a departure from the Russian tactics of 1941, when much valuable time was lost in attacking strong points instead of leaving them behind to be liquidated later.

(3) The third Russian advance, also with Rostov as its objective, was made along the east side of the Don. Having smashed the German counter-offensive, the Russians took Kotelnikovo (29 December), and continued south-west in the direction of Salsk, towards which troops from the Kalmuk steppes were thrusting along the valley of the Manich River.

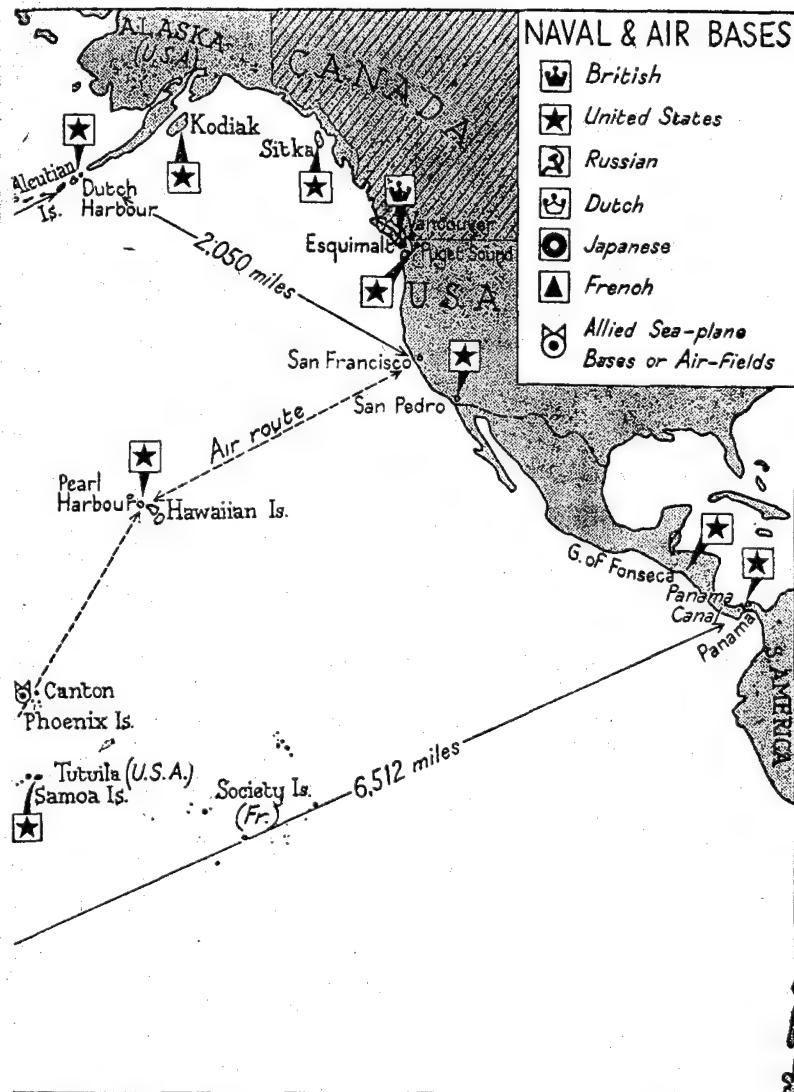
Not until the Germans were in full retreat did the Russians strike on the Caucasian Front, where in late December they took Nalchik (26th), and forced the Terek River, the scene of their determined stand in November.

By the end of the year the Russians had already achieved far more than in the corresponding period in 1941. They had out-generalled and out-fought the Germans, had freed vast areas, and captured vast quantities of material.



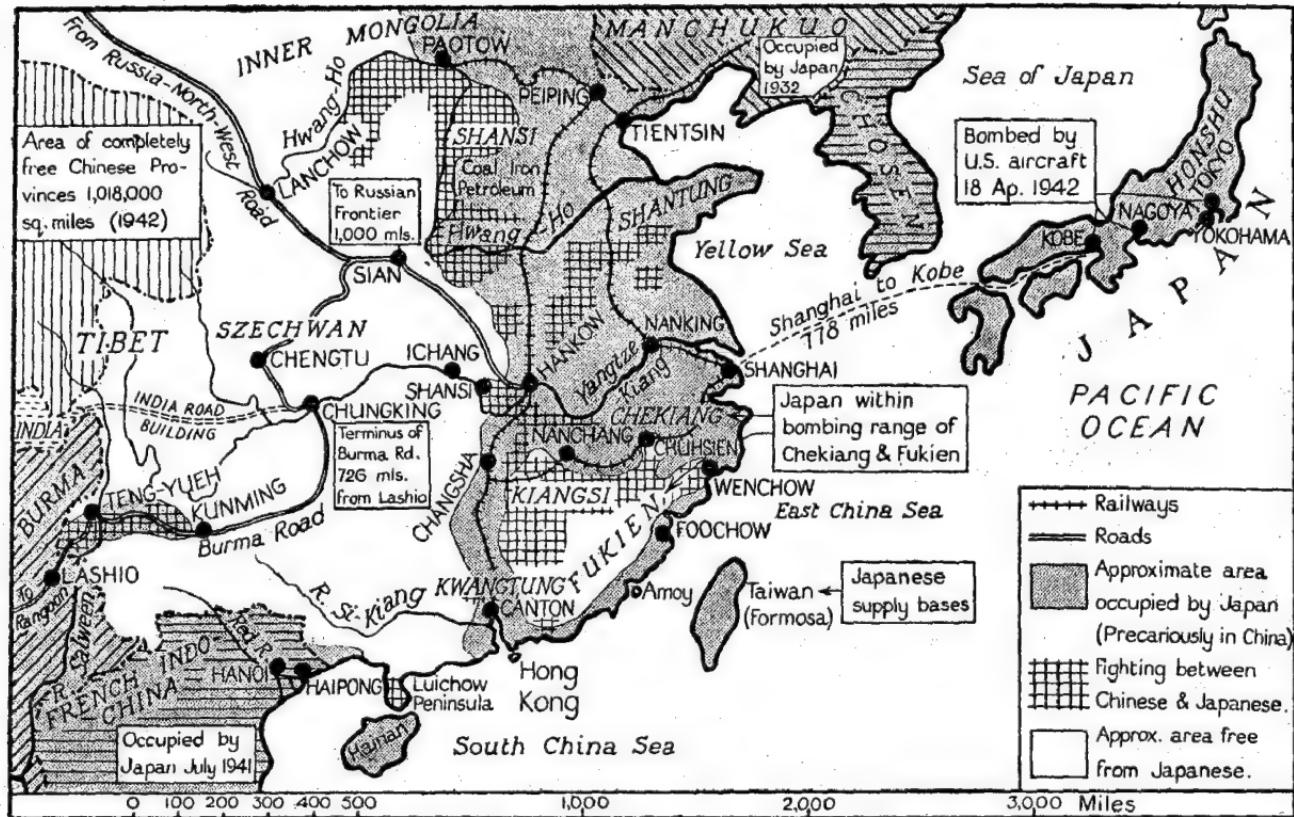
22. THE PACIFIC

THE Pacific covers one-third of the earth's surface. Apart from the Hawaiian Group, most of the islands lie in the west, where they form stepping stones from the Kurile Islands to Australia and New Zealand. The United States utilized isolated islands to establish trans-Pacific air routes. Japan built up strong naval-air bases stretching from Paramushiro (Kuriles) to Truk Island (Carolines) and on entering the war



THEATRE OF WAR

further strengthened her hold on the Western Pacific by seizing Guam and Wake (U.S.), the northern Solomons, and the Gilbert Islands (British). Her initial successes were due mainly to the fact that her naval, air, and land forces worked in the closest combination. And herein lies the key to events in the Pacific theatre of war.



23. THE SINO-JAPANESE WAR

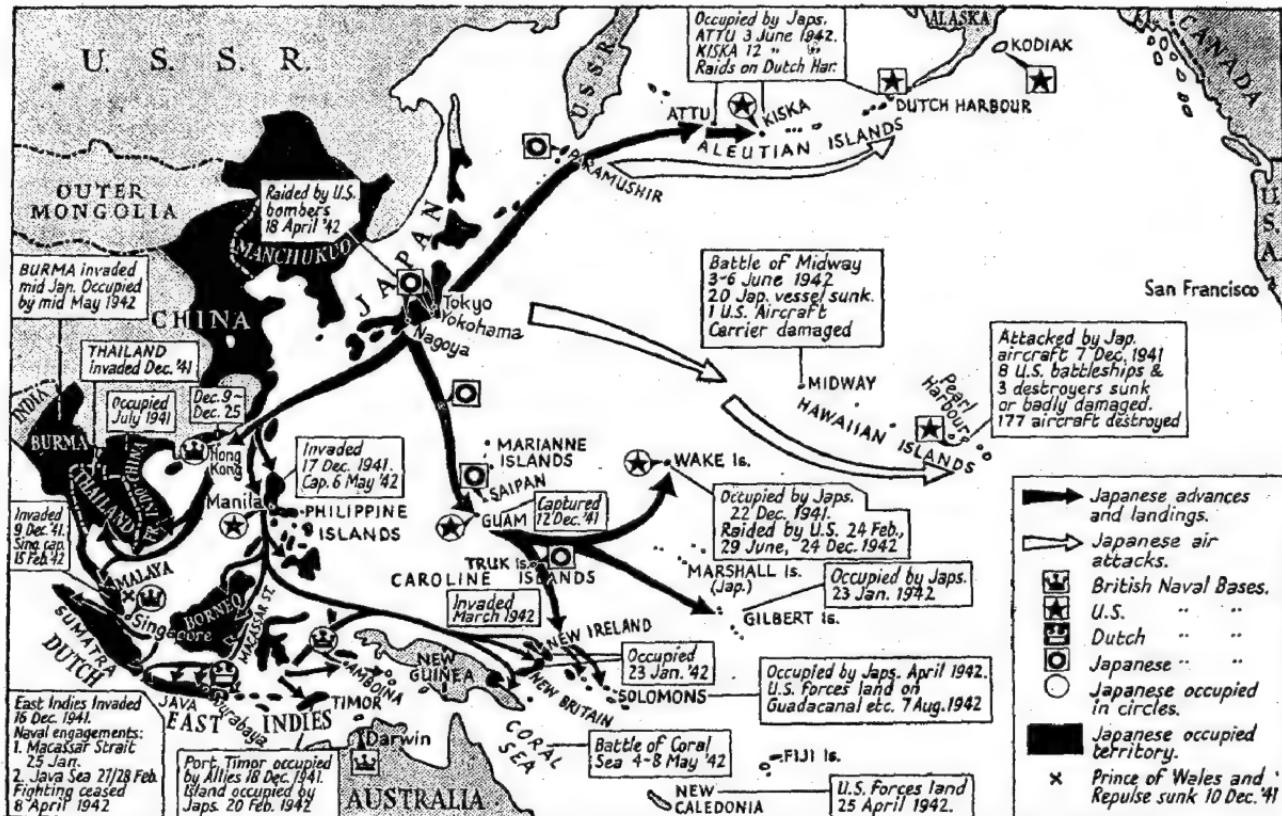
23. THE SINO-JAPANESE WAR

HAVING consolidated her position in Manchukuo, Japan invaded China in July 1937. With a monopoly of sea and air power, and far better equipped land forces, Japan struck at China's communications. By March 1938 she had secured control of the greater part of Eastern China, including (1) the railways and waterways ; (2) the principal inland cities and all the major ports ; (3) the greater part of the seaboard, and (4) the rich Shansi coal and iron fields. The Chinese Government retired to the interior where they established their war-time capital at Chungking.

After the Japanese occupation of French Indo-China (July 1941), Free China was isolated from the outside world except (a) by way of the Burma Road, and (b) the North-West Road from Russia, which was too long a haul to be of great practical importance. On 8 December 1941, in order to show her solidarity with the Allies, China declared war on the Axis powers. The conquest of Burma and the closing of the Burma Road—henceforth a Japanese invasion route—made China virtually dependent on air routes, notably from India whence U.S. bombers, flown to Chinese bases, played a prominent part in bombing Japanese occupied ports and airfields,

Only with difficulty during 1942 did Japan retain a measure of control over Eastern China, where fighting took place in most provinces, Japanese rail communications being frequently cut.

After Tokyo, Yokohama, Kobe and Nagoya had been raided on 18 April by U.S. carrier-borne bombers which subsequently landed on Chinese airfields, the Japanese made determined efforts to suppress all Chinese resistance in the coastal province of Chekiang and Fukien, and in the adjacent province of Kiangsi, so as to prevent airfields in this area being used for offensive action against military and industrial targets in Japan. The invaders made considerable headway against the Chinese during May and June. But by mid-July the defenders took the offensive and (1) cut and subsequently seized several hundred miles of the railway linking Shanghai, via Nanchang, with the Canton-Peiping line ; (2) captured Chuhsien (28 August), the largest airfield in Asia ; (3) strengthened their pockets of resistance along the coast, e.g. round Wenchow, and (4) farther south frustrated (December 1942) a Japanese attempt to seize the Luichow Peninsula.



24. JAPAN'S ADVANCE IN SOUTH-EAST ASIA AND THE PACIFIC

24. JAPAN'S ADVANCE IN SOUTH-EAST ASIA AND THE PACIFIC

JAPAN'S avowed purpose before she entered the Second World War was to establish what she termed a 'Co-prosperity Sphere for Greater East Asia'. The map shows that by the end of 1942 she had already succeeded in extending her sway west to Burma and, in part at least, east to the 180th meridian. But she had not completed the second portion of her programme, which aimed at the subjection of India, Australia and New Zealand.

The crippling blows inflicted on the American fleet at Pearl Harbour on 7 December 1941, and the sinking by aircraft off the east coast of Malaya of the *Prince of Wales* and the *Repulse*, gave Japan temporary mastery of the Pacific. And her dominant position at sea was enhanced by her numerical superiority in the air.

With such rapidity did Japan exploit her successes that by 9 December, Thailand had submitted; while Hong Kong capitulated on 25 December; the Malayan Peninsula was occupied by 31 January 1942; Singapore fell on 15 February; the Dutch East Indies surrendered on 9 March; Corregidor, the last American outpost in the Philippines, yielded on 6 May; and Burma

was evacuated by the British by the middle of May.

Even before she had completed her conquest of Indonesia, Japan stretched her tentacles towards Australia. Starting on 23 January (on which date she occupied Rabaul) she seized the northern Solomons, and landed in north-east New Guinea.

Japan suffered her first defeat in the *Battle of the Coral Sea* (4–8 May), a new type of naval engagement in which aircraft were the decisive factor. Turning their attention to the North Pacific, the Japanese raided Dutch Harbour in the Aleutians, and, on the same day (3 June), seized Attu, and advanced towards Midway. In the *Battle of Midway* (3–6 June), where the opposing fleets did not approach within 200 miles of each other, the Americans, who had the advantage of land-based over carrier-borne aircraft, decisively defeated their opponents. This battle marked a decline in Japanese sea power and in subsequent engagements in the Solomons area (see 34) the Japanese southward advance was held.



25. HONG KONG

25. HONG KONG

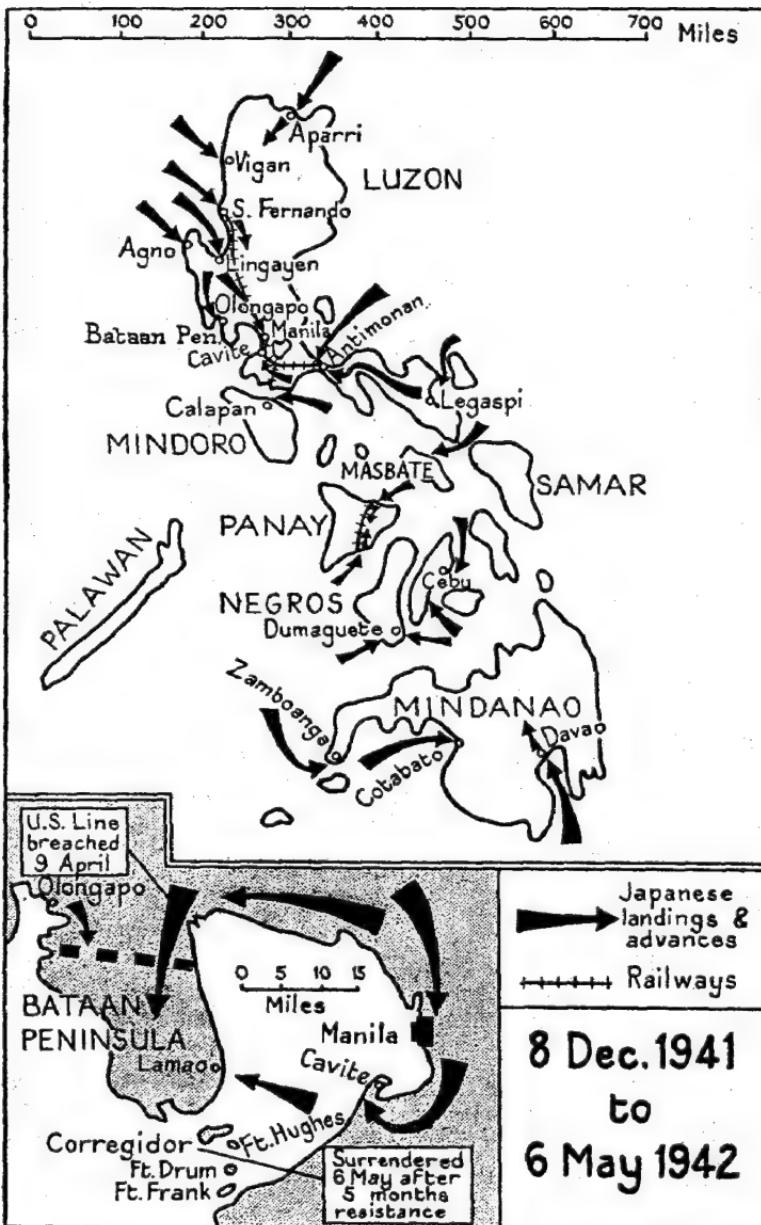
9 to 25 December 1941

ON 8 December 1941 battle positions were manned in Hong Kong. At dawn on 9 December the Japanese opened their attack by raiding the Island and the docks and shipping in Victoria Harbour. Fighting a rearguard action British, Canadian, and Indian troops withdrew from the Leased Territory of Kowloon Peninsula (356 square miles in area), which was evacuated by 12 December.

A general assault on the Island began on 14 December when it was subjected to heavy shelling from Japanese batteries placed on a ridge behind Kowloon, and to widespread attacks by bombers to which the defenders, lacking air support, could only reply with A.A. guns. In an attempt to relieve the pressure the Chinese attacked Japanese troops to the east of Canton (see map 23), and also thrust towards Kowloon Peninsula from Kwangtung. On 19 December the Japanese landed at three points on the Island; by 21st they controlled the surrounding waters; on 23rd they landed more reinforcements on the north-east coast and proceeded to attack the defenders continuously. By this time a wedge had been driven into the British forces, who were now split into two main bodies with small pockets scattered over the island. The reservoirs and the food depots were in Japanese hands by 23 December. Air attacks were intensified on the following day, when the defenders, lacking both food and water, were unable to offer further effectual resistance, making inevitable the surrender of the Island, which took place on Christmas Day.

Even before the days of modern aircraft the position of Hong Kong was extremely vulnerable. But with an enemy in virtual command of both sea and air and possessing overwhelming land forces, its ultimate fate was never in doubt, especially after the Leased Territory, where both the aerodrome and the seaplane base were situated, had been occupied by the enemy.

Subsequent atrocities perpetuated on prisoners of war, many of whom were bound and bayoneted to death, and on white and Chinese civilians, are but one of the many blots on so-called Japanese honour.



26. THE CONQUEST OF THE PHILIPPINES

26. THE CONQUEST OF THE PHILIPPINES

8 December 1941 to 6 May 1942

FOLLOWING her usual procedure, Japan opened her attack on the Philippines by preparatory air raids. Day and night raids on Manila, the capital, were succeeded on 10 December by naval and air attacks on the north-west coast under cover of which landings were made at various points between Aparri and Vigan.

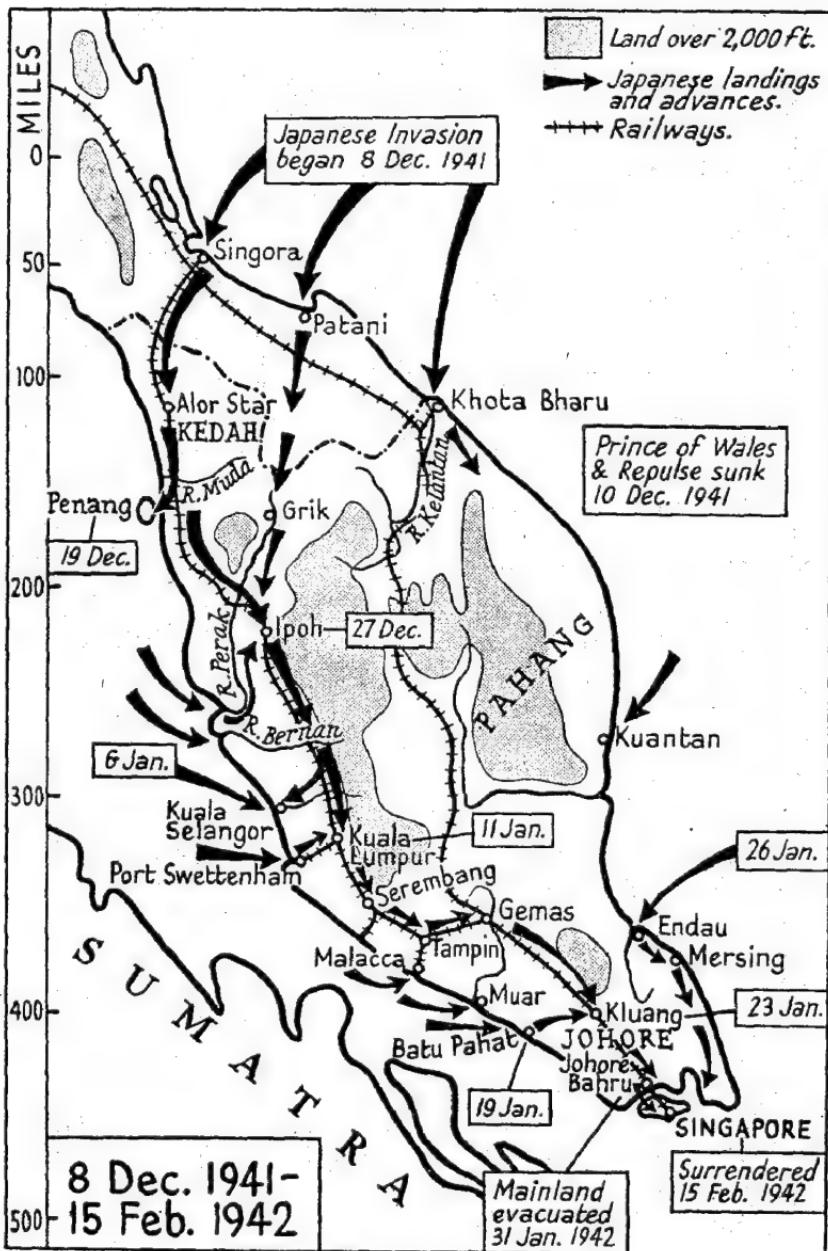
On 13 December Japanese troops landed at Legaspi in the south-east of Luzon, and subsequently at Antimonan. On 22 December an armada, including 80 troopships carrying 80,000 men, entered Lingayen Bay. Converging columns from Lingayen and Antimonan struck towards Manila, which after a major battle to the north of the city fell on 2 January, together with Cavite, the principal naval base.

Fierce fighting continued in Luzon. Following Japanese landings in Subic Bay and the occupation of the naval base of Olongapo, the defenders gradually withdrew to the Bataan Peninsula, which with Corregidor and other island-forts at the entrance to Manila Bay remained the chief centre of resistance in Luzon. Japanese attacks, continuing throughout February and March, culminated in a general assault on Bataan Peninsula. After landings had been effected on the east side (31 March), the American lines defending the landward approaches were breached on 9 April, on which date fighting ceased, the Japanese claiming 53,000 prisoners including nearly 10,000 Americans.

The island-forts in Manila Bay still held out, and fighting also continued in the southerly islands on which the Japanese landed at various dates from 20 December, when they captured Davao (Mindanao), to 16 April when they invaded Panay.

After five months fighting, Corregidor, together with Forts Drum, Hughes, and Frank, surrendered on 6 May when resistance virtually ended throughout the Philippines.

Without detracting in any way from the magnificent fight put up by the defenders, it should be noted that in the first instance the Japanese merely wished to immobilize the Philippines so as to guard their flank while they invaded Malaya and the East Indies. Having secured these, they then completed their conquest of the Philippines, whose importance was strategic even more than economic.



27. THE CONQUEST OF MALAYA

27. THE CONQUEST OF MALAYA

TAKING advantage of the privileged position they had held in French Indo-China since July 1941, and of the abject submission of Thailand, the Japanese invaded Malaya on 8 December 1941. They landed (1) at the mouth of the Kelantan River subsequently capturing Khota Bharu and its airfield ; (2) at Patani (Thailand) whence they struck south across the frontier towards Grik, and (3) at Singora (Thailand) from which they made their main advance, following the railway running across the Peninsula, and down the west coast. Proceeding through Kedah the invaders crossed the Muda River, and seized the island-base of Penang (19 December). Ipoh, centre of the tin industry, was captured by a pincer movement on 27 December ; Kuala Lumpur fell on 11 January, Gemas a few days later. On 16 January enemy columns entered the state of Johore.

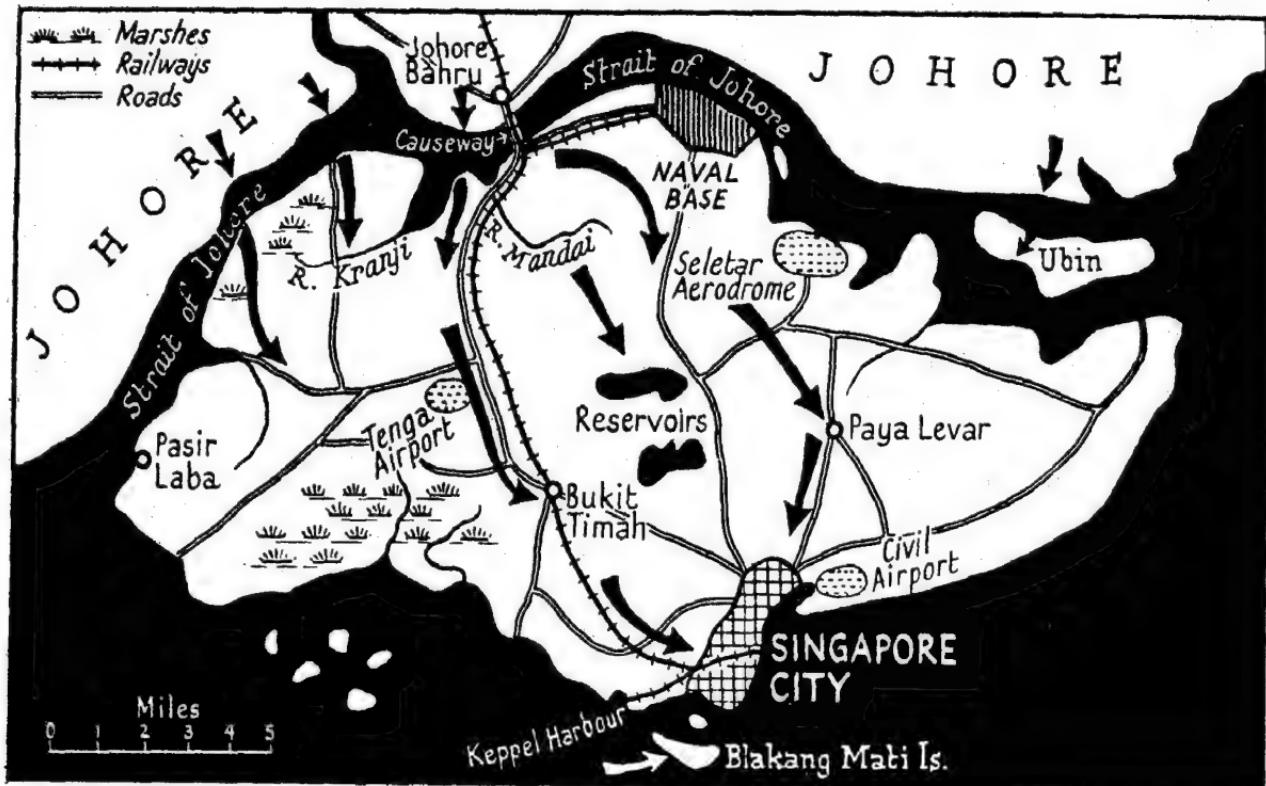
To the south-west of Gemas, Japanese forces, despite opposition by Indian and Australian units, crossed the Muar River, south of which landings were made (19 January) at Batu Pahat. Kluang was captured by converging columns on 23 January.

Additional landings were made on the east coast, notably at Kuantan (31 December), and Endau, after the Australians had evacuated Mersing, owing to the threat to their left flank caused by the enemy occupation of Kluang.

On 31 January, after the last defending troops had been withdrawn to the island of Singapore, the Johore Causeway connecting the Island with the mainland was breached.

Why was it that within seven weeks the Japanese were able to conquer the Malay Peninsula ?

(1) Their superiority in the air, which they exploited by seizing inadequately defended airfields, enabled the Japanese to bomb objectives before closing in on them, and to provide full cover for their own forces. (2) Their predominance at sea, increased by the loss of the *Prince of Wales* and the *Repulse* (10 December), which lacked the protection of fighter aircraft, permitted the Japanese to land reinforcements all along the coasts, and thus to outflank the defenders and prevent them from forming a stable line. (3) The Japanese travelled light, lived on the land, and displayed great skill in jungle warfare, frequently filtering through the Allied lines.



28. THE FALL OF SINGAPORE

28. THE FALL OF SINGAPORE

THE Battle for Singapore began on 31 January 1942. Japanese raids on the Island and especially on the city of Singapore, which had been frequent during their sweep through the Malay Peninsula, were intensified from the beginning of February onwards.

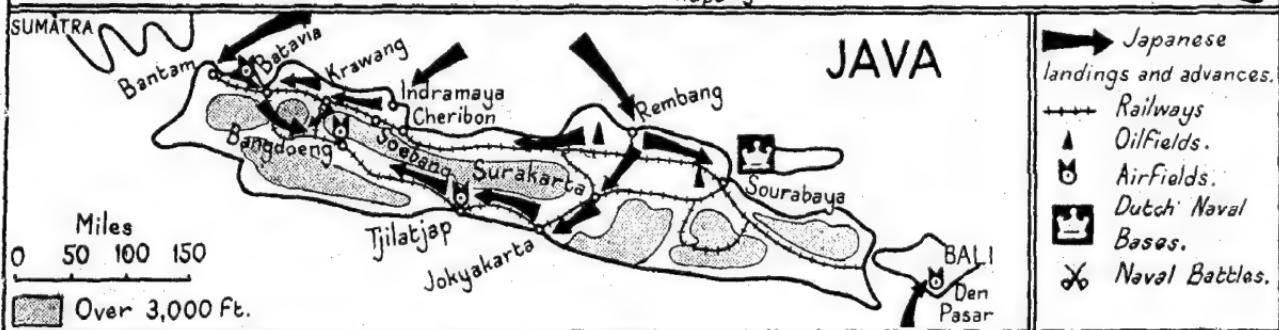
The general attack began on 4 February, when the naval base was raided and set on fire. Built on the inner side of the Island the better to withstand attacks from the sea, the base was in any case untenable once hostile forces held the opposite side of the narrow Strait of Johore. So too, of course, was the neighbouring Seletar Aerodrome. On 8 February the Japanese occupied Ubin Island. On the night of the 8/9th, crossing Johore Strait, they landed on a 5,000-yards strip of coast between the Kranji River and Pasir Laba.

Following the methods that had proved so effective in the Peninsula, the first Japanese objective was an airfield—Tengah airport, captured on the evening of 9 February. The defenders, attacked by waves of dive-bombers and machine-gunned from the air, were supported by only a few Hurricane fighters and so

had to depend mainly on A.A. guns for protection against the hostile planes.

The Japanese continued to make fresh landings. By 11 February, on which day they occupied the racecourse at Bukit Timah, they had repaired the Johore Causeway and were bringing tanks across it. Fierce fighting was now going on for the control of the reservoirs, which by 14 February were so badly damaged that only enough water remained to supply the million people in Singapore for twenty-four hours.

On 14 February the Japanese occupied the naval base at noon. In the south of the Island, converging columns advanced on Singapore City from Bukit Timah to the north-west and Paya Lebar to the north-east. Though the city was twice raided during the day no British aircraft appeared. Lacking airfields and aircraft, with a shortage of water, food, petrol, and ammunition, and with troops exhausted, General Percival surrendered unconditionally, with 75,000 men on the evening of 15 February, less than a week after the Japanese had first landed in the Island. It was the greatest military disaster in the history of the British Empire.



20. THE INVASION OF THE EAST INDIES

29. THE INVASION OF THE EAST INDIES

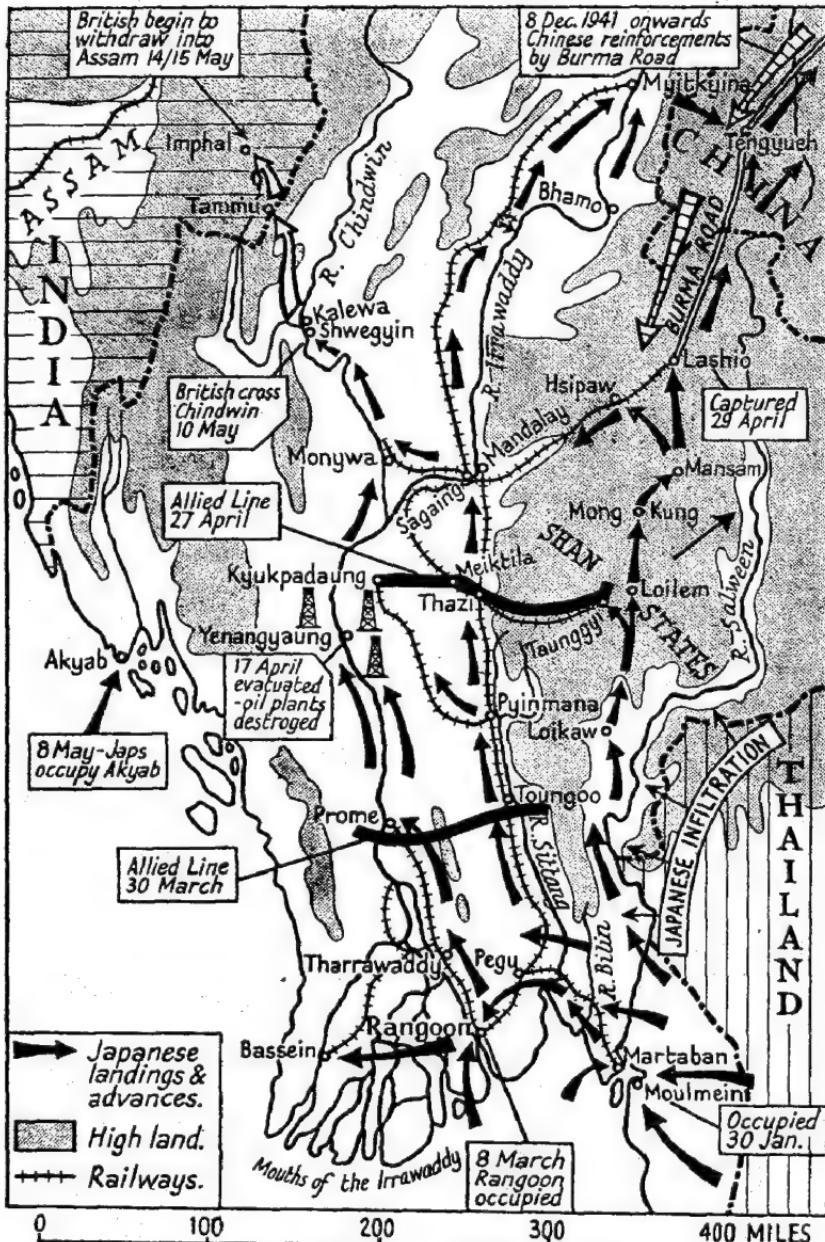
WITHIN a week of their invasion of Malaya the Japanese attacked the East Indies. On 24 December they landed at various points in Sarawak, and within a month the whole of that area, together with the adjacent colony of British North Borneo was in Japanese hands. On 11 January, the enemy captured the Dutch oil centres of Tarakan and Menado in the north-east of the Celebes ; on 25 January they took Balik Papan. Though American warships and American and Dutch aircraft inflicted considerable losses on a Japanese fleet in the *Battle of the Strait of Macassar* (25-27 January), the invaders effected further landings, and by the end of January held all the chief ports in Borneo and the Celebes, as well as Amboina, the second Dutch naval base.

With the object of isolating Java, one of the most productive and densely peopled islands in the world, the Japanese occupied Bali and Timor, securing the airfields, and also landed in the south of Sumatra, where they took Palembang, the centre of an oil area accounting for 50 per cent of the output of the Dutch East Indies.

After defeating a relatively weak British, American, and Dutch fleet in the *Battle of the*

Java Sea (27 February), the Japanese landed in Java at (a) Bantam and Indramaya, west and east respectively of Batavia, the capital, and (b) near Rembang. By 28 February the enemy had occupied the Plains of Indramaya and were threatening with pincer movements both Batavia and Bangdoeng to which place the Dutch Government had retired. By the beginning of March the enemy had complete mastery of the air and sea, and a superiority of ground forces in Java of five to one. Batavia fell on 5 March by which date the Japanese had driven a wedge from Rembang right across the island to the south coast, and also controlled the entire plain running for 600 miles from east to west through the north of the Island. On 8 March the Dutch commander surrendered unconditionally with 93,000 Dutch, and 5,000 British, American, and Australian troops.

The Dutch fought bravely. They carried out to the full a 'scorched earth' policy, but the invaders were superior on the sea, in the air, and on land. By their conquest of the Dutch East Indies and Malaya, the Japanese obtained control of a region producing nearly 90 per cent of the world's rubber, nearly 40 per cent of the tin, and sufficient oil for Japanese needs.



30. THE LOSS OF BURMA

30 THE LOSS OF BURMA

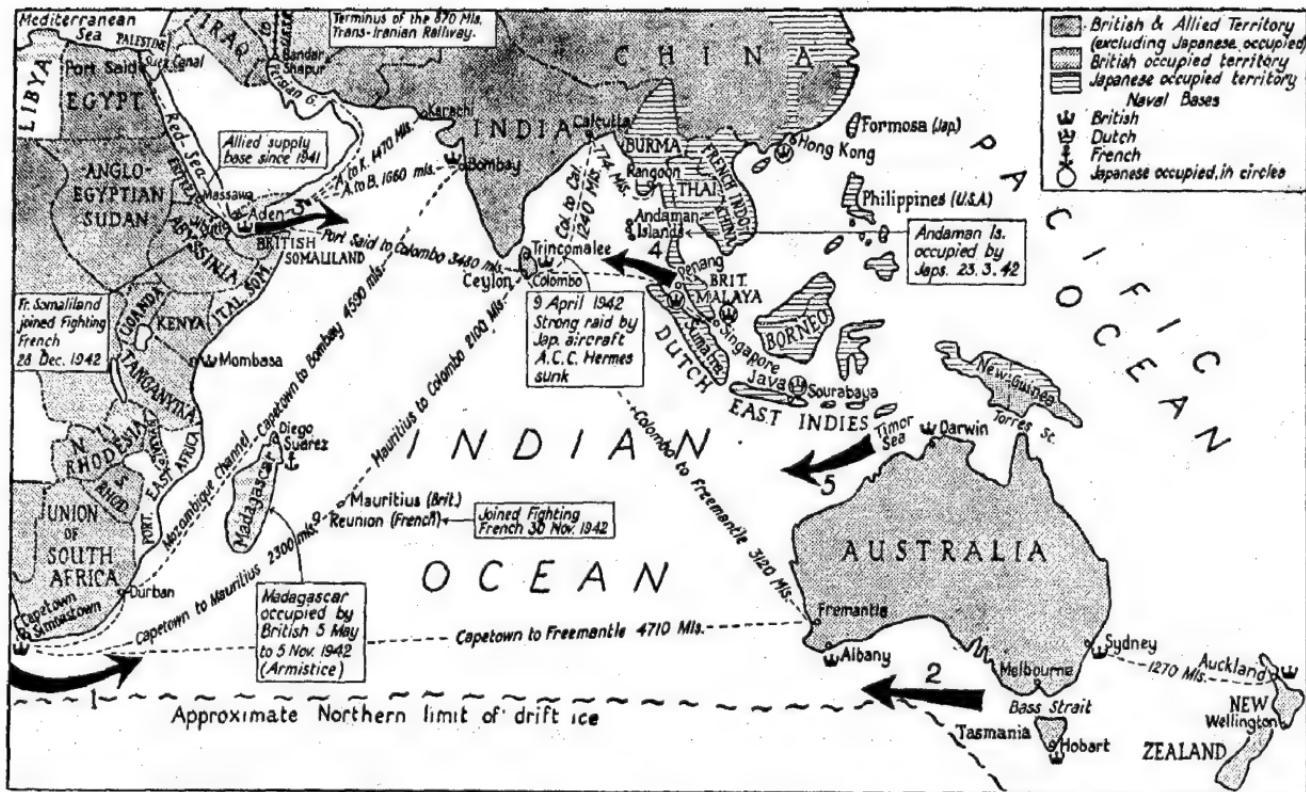
THERE being no practical routes over the mountains separating Burma from India, the defence of Burma rested primarily on command of the sea. This was lacking. And to naval weakness was added not only weakness in the air, but military weakness, for Burma was defended only by two British and Indian divisions, reinforced by two Chinese armies, seasoned fighting men, but inferior both in numbers and equipment to their British allies.

The Japanese scored their first success when, on 15 December, the British evacuated the aerodrome at Victoria Point in the extreme south of Burma. But real hostilities only began on 30 January 1942, when the enemy advancing from Thailand occupied Moulmein, thus attaining the first step towards their immediate objectives : (1) the ports and airfields ; (2) the oilfields, and (3) Lashio, terminus of the Burma Road. They were racing the monsoon, which, when it burst in Lower Burma in May, would bring land and air operations to a virtual standstill.

Crossing the Salween (9 February), and reinforced by troops landing at Martaban, the enemy forced the rivers Bilin (17 February) and the Sittang (23 February), occupying Rangoon on 8 March, the British having previously demolished port works, essential stores, and oil refineries.

From Rangoon the Japanese advanced (1) towards Bassein ; (2) up the Irrawaddy valley to Prome (captured on 1 April), and (3) up the Sittang to Toungoo, held by the Chinese until 31 March. Fighting rearguard actions against an enemy overwhelmingly superior in the air and continually receiving reinforcements, the British and Chinese, who maintained contact, retired. The wells having been destroyed, the oil-fields were evacuated (17 April), and on 27 April the Allies held a line from Kyukpadaung to Taunggyi (see map).

In mid-April, Japanese forces from Northern Thailand crossed the Salween, and advancing through the Shan States captured Loikaw (21 April) and Loilem, whence, by-passing the Chinese left flank, near Taunggyi, they seized the railhead of Lashio (29 April). They then advanced (1) up the Burma Road into China (6 May), so isolating that country from her allies, and (2) on Mandalay, which was taken on 1 May after the British had crossed the Irrawaddy and were retiring up the east bank of the Chindwin. On 10 May, closely followed by the Japanese, the British crossed the Chindwin at Shwesgyin, withdrawing by mountain trails into Assam, into which Indian province part of the Chinese army also succeeded in escaping.



31. THE INDIAN OCEAN

31. THE INDIAN OCEAN

BEFORE the Second World War the Indian Ocean was aptly described as 'A British Lake', for most of the territories around its shores, most of its scattered islands, and most of its strategic points, were held by the British Empire.

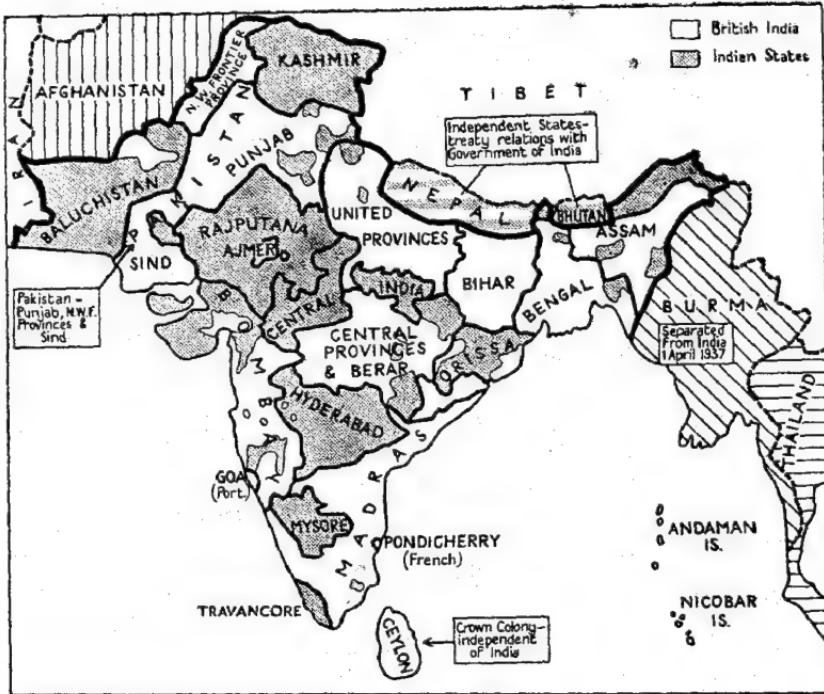
Five main sea-gates give access to the Indian Ocean. Of them three are still controlled by Britain : (1) the Cape route from the Atlantic, with the naval base of Simon's Town ; (2) the routes south of Australia, chief of which is that through the 140-mile wide Bass Strait, and (3) the Suez Canal-Red Sea route, linked with the Indian Ocean by the Strait of Bab-el-Mandeb, which is guarded by the British fortress of Aden. But the passage through the Timor Sea (5 on map), north-west of Australia, is open to attack from the Japanese-occupied East Indies, while that through the Strait of Malacca (4 on map), between Sumatra and the Malay Peninsula, is entirely under

Japanese control, as are the lesser seaways between the islands of the East Indian Archipelago.

Moreover, by her seizure of the Andaman Islands (March 1942) Japan obtained an advance base for offensive operations in the Bay of Bengal.

To secure the vital corridor of the Mozambique Channel, Britain in 1942 occupied Madagascar (see 12), with the important naval base of Diego Suarez. Through the Mozambique Channel pass convoys destined for (a) Persian Gulf ports through which enter supplies for Russia ; (b) India (Bombay and Karachi), and (c) the Middle East.

Japanese raids on Colombo (5 April 1942), and especially on the naval base of Trincomalee (9 April 1942), emphasize the strategic importance of Ceylon, which in enemy hands would dominate both the south-western and south-eastern approaches to India.



MANGANESE



Each symbol represents
10% of World production

COTTON



JUTE



32. THE INDIAN EMPIRE

32 THE INDIAN EMPIRE

THE Indian Empire has 389 million inhabitants of whom nearly 70 per cent are Hindus and 25 per cent are Moslems. Two hundred and twenty-two languages are spoken, English being the official tongue, Hindustani the most widely used, and Bengali spoken by some 50 millions in Bengal.

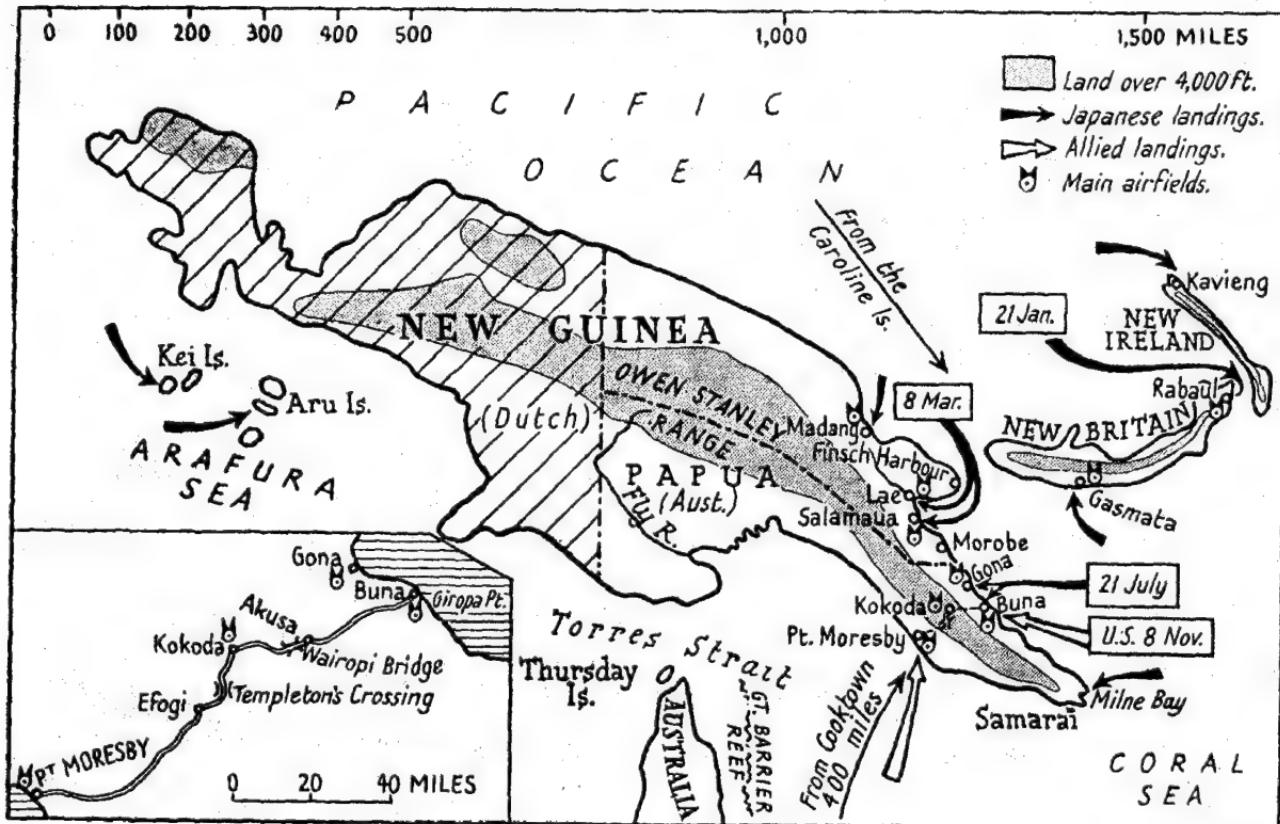
The Empire consists of (1) *British India*, containing 80 per cent of the population, and (2) the *Indian States*, whose rulers owe allegiance to the King-Emperor. Of the two major political parties, the *Indian Congress*, predominantly Hindu, aims at full independence for India as a single unit. The *Muslim League*, led by Mr. Jinnah, maintains that India is not a unit, and wishes to establish a Dominion of Pakistan, independent of the Hindu majority prevailing in the rest of India.

In March 1942, Sir Stafford Cripps, on behalf of the War Cabinet, visited India, and in a Draft Declaration (published on 29 March) offered to her people what was, in effect, full Dominion status (with liberty to secede from the Commonwealth) to take effect after the War, subject to the right of any Province or State to make separate arrangements with the British Government. Mainly owing to the influence of Mr. Gandhi the offer was rejected. Subsequently Congress initiated a campaign of Civil Disobedience, which threatened to lead to such grave disorders that Mr. Gandhi, Pandit Nehru, and other Congress leaders were arrested.

Yet, despite adverse political factors, India's War Effort has greatly increased. From a peace-time strength of 160,000 her army has increased to something approaching two million men, all volunteers. Similarly the Indian Navy and Air Force have also been greatly expanded.

India, which produces sufficient coal and iron, and more than enough manganese for her steel industries, has much increased her output of war material, which includes munitions, ships, and locomotives for the forces in the Near and Middle East. Accounting for 12 per cent of the world's cotton, 3 per cent of the wool, 99 per cent of the jute, and breeding more cattle than any other country, India is also manufacturing for the defence forces, vast quantities of clothing, cotton-jute canvas, and, on an average, three million pairs of boots a year.

Both on account of her central position and her war production, India is the leading member of the Eastern Group of the British Empire, whose activities were, however, curtailed by the loss of Malaya, Burma, and other areas in the Far East.



33. NEW GUINEA

33. NEW GUINEA

NEW GUINEA, about two and a half times the size of the British Isles, is divided politically into (1) Dutch New Guinea, (2) North-Eastern New Guinea, and (3) Papua, both governed by Australia. With Timor (occupied by the Japanese in February 1942), New Guinea commands the northern approaches to Australia from which it is separated by the 115 mile-wide Torres Strait.

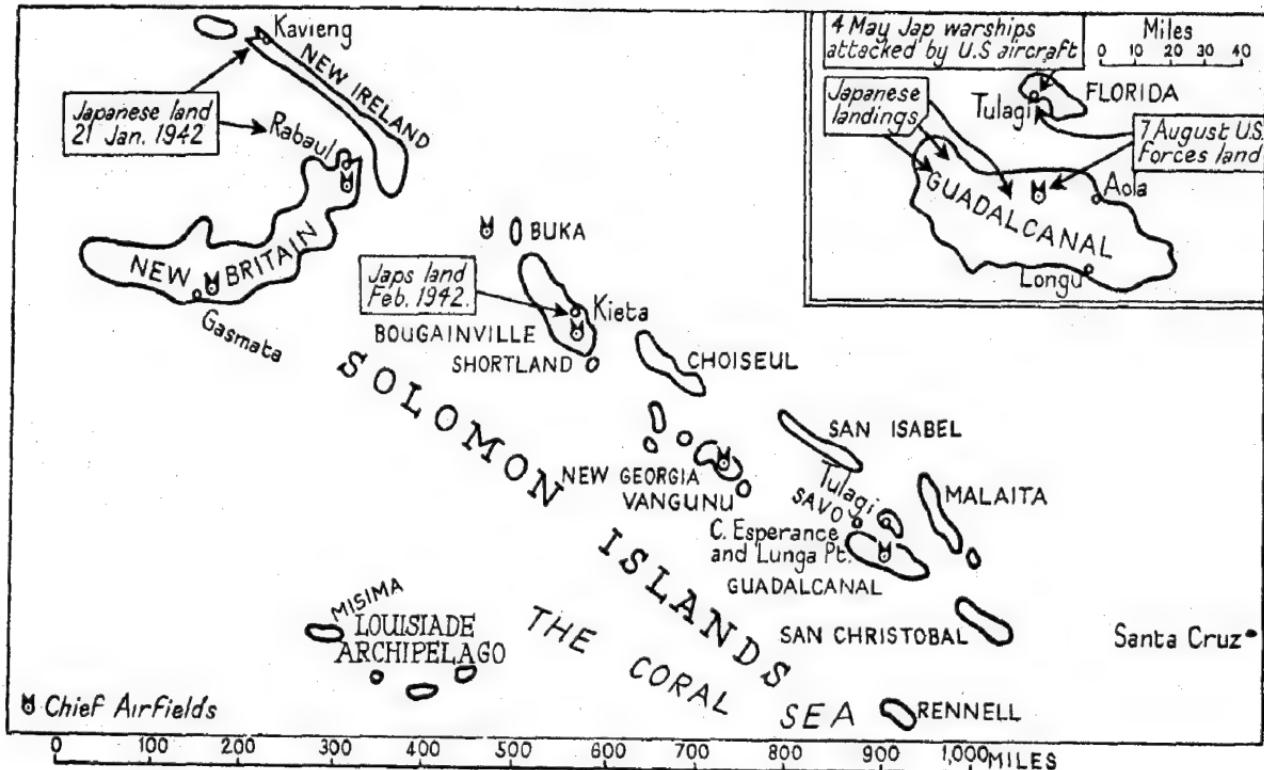
Having occupied and secured airfields at Rabaul and Gasmata (New Britain), the Japanese proceeded to raid Port Moresby, Lae, and Salamaua. On 8 March they occupied the two last-named places, and shortly afterwards took Finsch Harbour and Madang.

For a time activity was confined to the air, but on 21 July, despite attacks by American bombers, the enemy succeeded in landing troops at Gona and Buna, villages on the north coast of Papua with a combined population of two to three hundred including less than a dozen whites. But a landing at Milne Bay (26 August) was effectually liquidated by Australian troops.

From Buna the Japanese struck inland along the route over the Owen Stanley Range to Port

Moresby. They captured the hill station of Kokoda, together with its airfield, and outflanking troops guarding Templeton's Crossing reached Efogi, on the Port Moresby side of the mountains. Becoming short of supplies the Japanese were eventually forced to retreat and early in November were driven back to coastal strips around Gona and Buna. The former village was occupied by Australian troops on 9 December, the latter on 13th, except for the Government Station where the Japanese held out until the turn of the year, when Papua was freed from the enemy.

But after nine months fighting by land, sea, and air, the Japanese still held a number of strong points in New Guinea including Lae, Salamaua, and Madang. The campaign well illustrates the difficulties that will still face the United Nations even after they have secured naval and air supremacy in the Pacific, for they will still have to eject the Japanese from innumerable islands spread over a vast area, and unless the enemy garrisons can be denied supplies the process—in any case a difficult one—can scarcely be accomplished within measurable time.



34. THE SOLOMON ISLANDS, NEW BRITAIN, AND NEW IRELAND

34. THE SOLOMON ISLANDS, NEW BRITAIN, AND NEW IRELAND

THE Solomon Islands, of great strategic importance, form part of a chain stretching south-east towards New Caledonia and the New Hebrides, separated from Queensland by the Coral Sea and lying athwart communications between Eastern Australia and America. Hence the Japanese attempts to secure control not merely of New Guinea and New Britain, but of the whole Solomon Group with a view (1) to using the islands as a base for a further southward advance preparatory to an attack on Australia, and (2) to protect their left flank against Allied attacks.

Early in 1942 the Japanese occupied Rabaul and Gasmata (New Britain), Buka Island, and Kieta, the capital of the Solomons, on Bougainville, obtaining numbers of actual or potential airfields.

The Japanese received their first check in the *Battle of the Coral Sea* (4-8 May), a series of naval and air actions in which practically all the attacking was carried out by aircraft. During this battle the main Japanese fleet, located south of Misima, was badly damaged and forced to retire.

Air activity, which was almost continuous, was

a feature of subsequent engagements. The chief were :

The *Battle of Savo Island* (8-9 August) during which the Americans seized the harbour of Tulagi, and the almost completed airfield on Guadalcanal, which despite Japanese attempts to dislodge them they continued to hold.

The *Battle of the Eastern Solomons* (23-25 August). Air versus surface action.

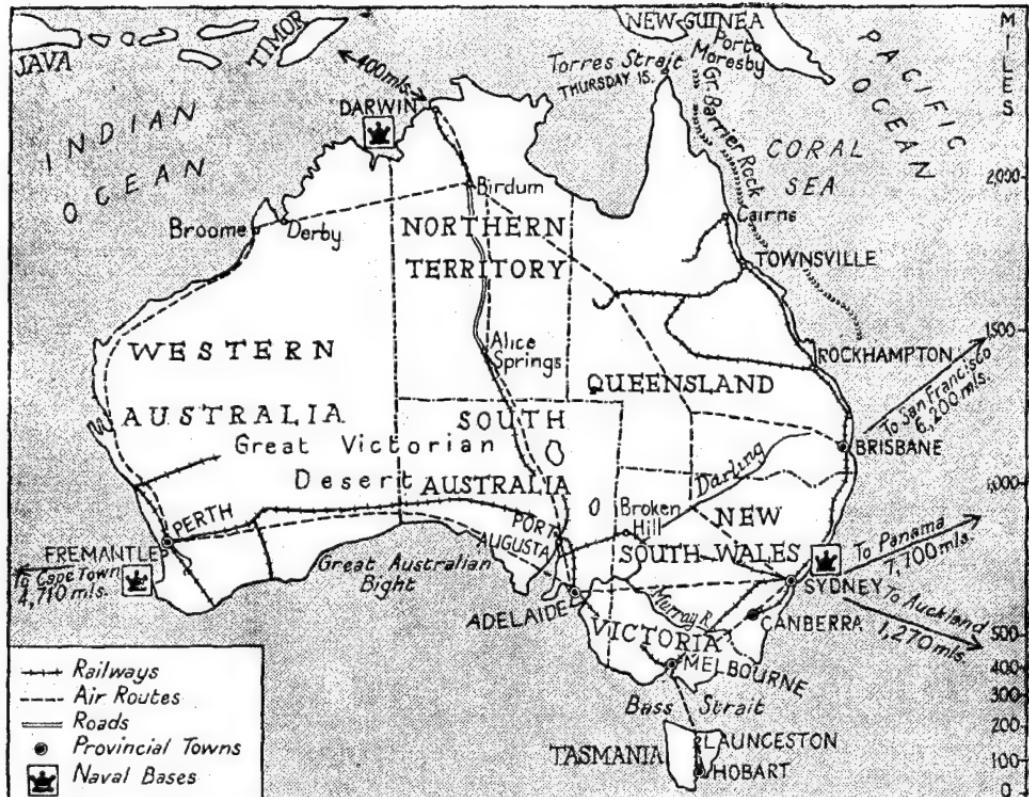
The *Battle of Cape Esperance* (11-12 October). Night surface action.

The *Battle of Santa Cruz Islands* (26 October). Air versus surface actions.

The *Battle of Guadalcanal* (13-15 November). Air and surface actions.

The *Battle of Lunga Point* (30 November-1 December). Night surface action.

Losses in ships and aircraft were heavy on both sides, but the Americans acquired a measure of air superiority that enabled them to check further Japanese attempts to move south. By the end of the year the Americans were strong enough to adopt local tactical offensives though, mainly owing to their lack of airfields, they were not yet in a position to swing over to a major strategical offensive.



35. AUSTRALIA AND HER WAR EFFORT

35. AUSTRALIA AND HER WAR EFFORT

AUSTRALIA, a bastion of the Pacific, a cornerstone of the Indian Ocean, lies remote from other progressive nations. Over 6,000 miles separate her from the United States, nearly 5,000 miles from South Africa, and 1,200 from New Zealand, her nearest partner in the British Commonwealth. The seven million Australians must, of necessity, rely on Britain and the United States to assist them in defending a continent that comprises one-fifth of the British Empire. Some 45 per cent of the people live in the five State capitals of Sydney, Melbourne, Brisbane, Adelaide, and Perth.

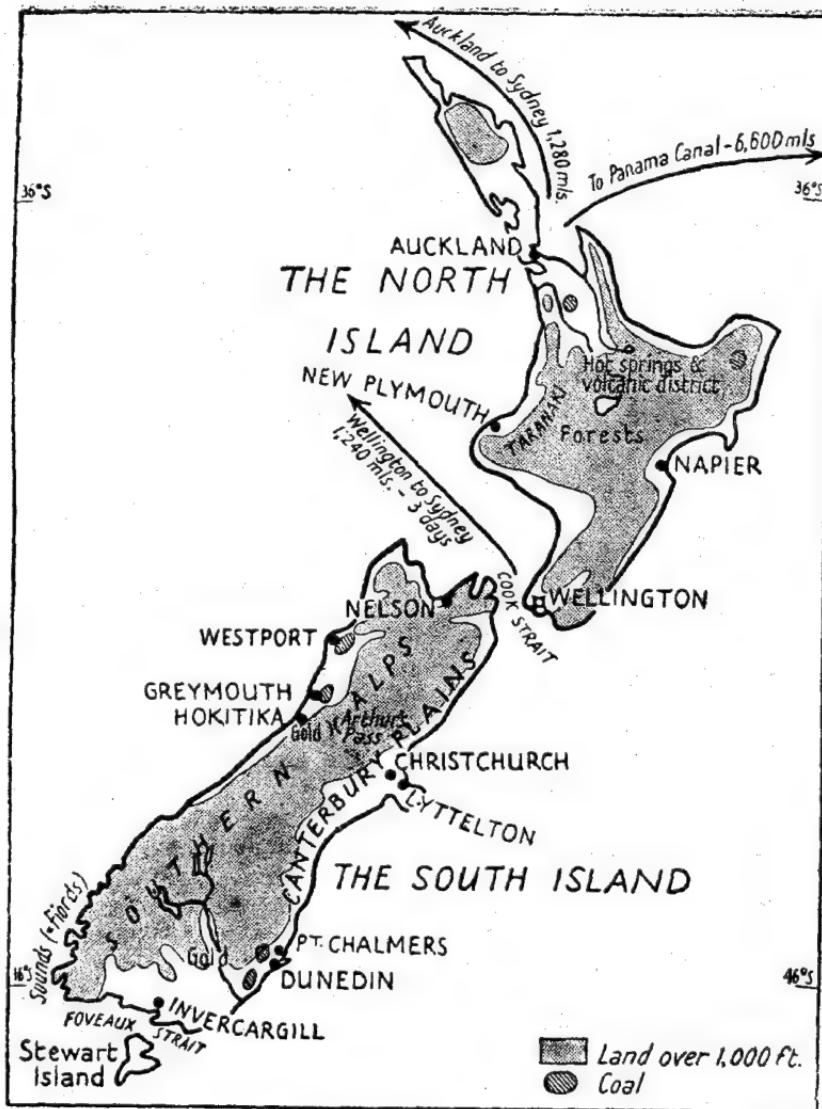
Normally, Australia's exports are wool, wheat and flour, butter, and gold. Of strategical materials she produces coal and iron, copper, lead, zinc, and tin. Thus there are ready to hand many substances required for forging the implements of war. At the end of 1942 there were somewhat more than twenty Government munition plants and some 20,000 factories, big and small, engaged in making aircraft, tanks, guns, bombs and grenades; while shipyards were working to capacity building corvettes, patrol boats, minesweepers, and other naval craft.

Practically all the available man-power is either in the Armed Forces or is employed on

war production, or on essential work. Nearly half a million persons are engaged in war work, and though (unlike Britain) Australia has not introduced conscription for women, yet they form 25 per cent of the employees in the munitions industries.

There were (December 1942) some 700,000 Australians in the R.A.A.F., the R.A. Navy, or in the Army; the number in the last named service having trebled since Japan entered the war. Conscription was only applied for home defence, but approximately three-quarters of the personnel had volunteered for service overseas. Though some crews go to Canada, most of the members of the Royal Australian Air Force are trained at home. The Force expanded from 5,400 men in March 1940, to some 60,000 in July 1941, since when it has greatly increased. Squadrons of the R.A.A.F. fought in the Battle of Britain, in the Middle East, in Malaya and the East Indies, and now many are engaged against the Japanese in New Guinea, the Solomons, and other Pacific areas.

Though the threat of invasion still hung over Australia at the end of the year, she was in a better position to resist the enemy than at the beginning of 1942.



36. NEW ZEALAND

36. NEW ZEALAND

THE Dominion of New Zealand, which lies 1,200 miles east of Australia, consists of two main islands, the North and the South Island, and a number of lesser islands in the South Pacific. Its total area is slightly less than that of the British Isles. The temperate climate favours dairying in the wetter west, and sheep farming in the drier east, especially on the Canterbury Plains of the South Island. The country produces enough coal for its own needs, while mountain streams, fed by abundant rains, furnish hydro-power. Normally the chief exports are butter and cheese, frozen meat and wool; the chief imports, textiles, petroleum, and iron and steel.

Approximately 10 per cent of New Zealand's population of 1,600,000 were in the Armed Forces in 1942. Even before conscription was introduced in July 1940, voluntary recruiting had raised a force of 66,000. Men of the New Zealand Expeditionary Force have fought in Greece, Crete, Libya and Egypt, while New Zealanders are serving in the Royal Navy and the Royal New Zealand Navy either overseas or in home waters. There were in August 1942 some 20,000 men either in the Royal New Zealand Air Force or in the R.A.F. Some were trained in New Zealand, some in Canada under the Commonwealth Air Training Plan.

Women between 18 and 45 years of age are enlisted in the Auxiliary Services.

Towards the end of 1942 some 15,000 persons were engaged on war production, and 130,000 were employed in supplying the Forces or the essential needs of civilians.

Though it is obvious that with her relatively small population New Zealand cannot produce war material on an extensive scale, yet she builds and repairs ships, and manufactures munitions including Bren-gun carriers, small arms ammunition, hand-grenades, and tommy-guns, as well as making military clothing.

War Expenditure during the financial year 1942-43 was estimated at £100,800,000 sterling, including £36,800,000 advanced by the United Kingdom and £8,000,000 from Lease-Lend sources.



37. LATIN AMERICA—COMMUNICATIONS

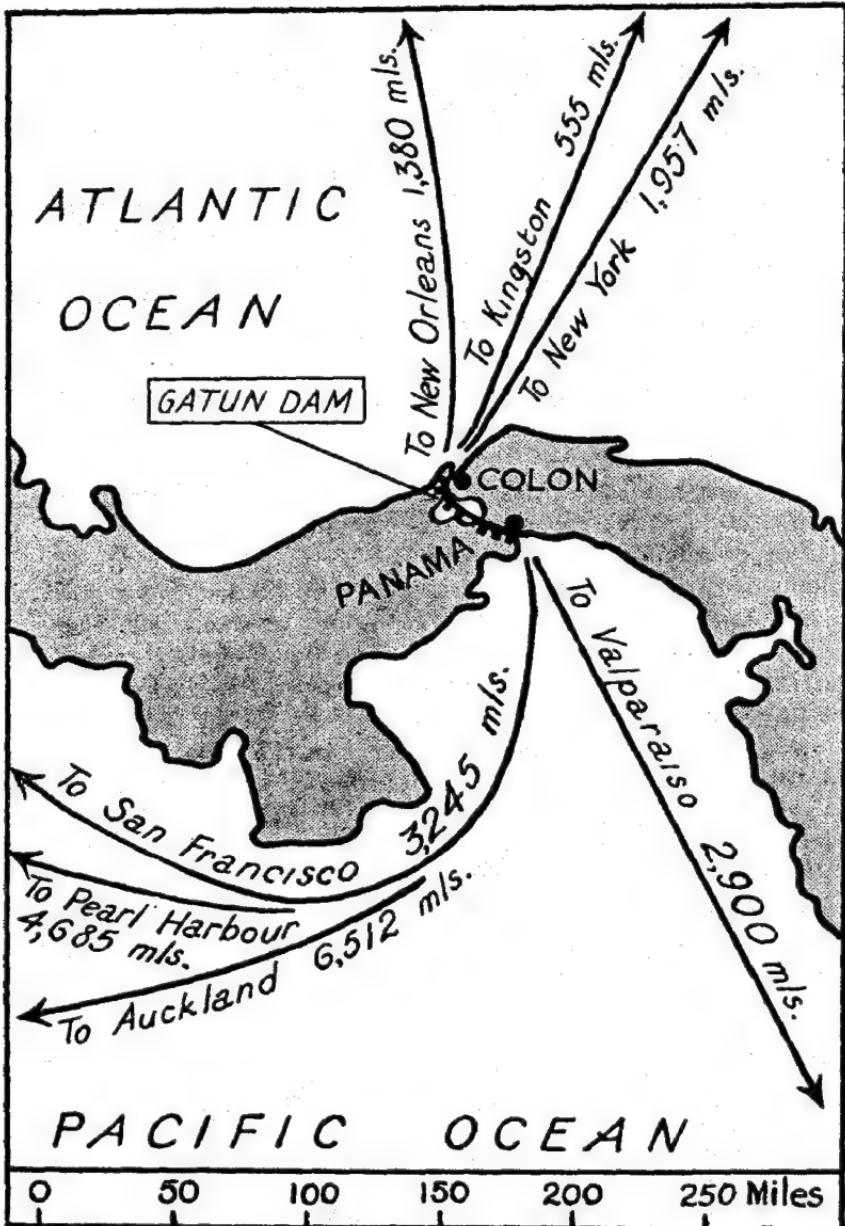
37. LATIN AMERICA—COMMUNICATIONS

THE Second World War is a Battle of Communications, no less than a conflict between mechanized forces. Both Central and South America suffer from poor communications. The latter region presents greater barriers to transport than any other continent ; the Andes cut off the lands fronting the Pacific from the rest of South America ; while the Caribbean countries are separated by the dense forests of the Amazon Lowlands from those to the south. These factors have retarded both economic development and continental unity, though under the stress of a common danger solidarity has to some extent been achieved under the leadership of the United States and Brazil.

Apart from Argentine, where the level topography has facilitated construction, no country in South America has an extensive or a unified railway system. Buenos Aires is the Atlantic terminus of the only two trans-continental railways (1) via Mendoza to Valparaiso, and (2) via Uyuni to (a) Antofagasta and (b) Arica both on the Pacific.

Air transport has greatly developed, and now that all the Latin American Republics (except Argentina) have either declared war on, or have severed relations with the Axis, the lines are no longer under German or Italian control. Pan-American Airways operate a coastal service (see map), which is linked with those of the United States, and Africa via Natal and the Atlantic Narrows.

Though some sections of the Latin American portion of the 16,000-mile *Great Hemisphere Highway* had not been completed by the end of 1942, yet 90 per cent of the route was open for traffic, except in certain areas during the rainy season.

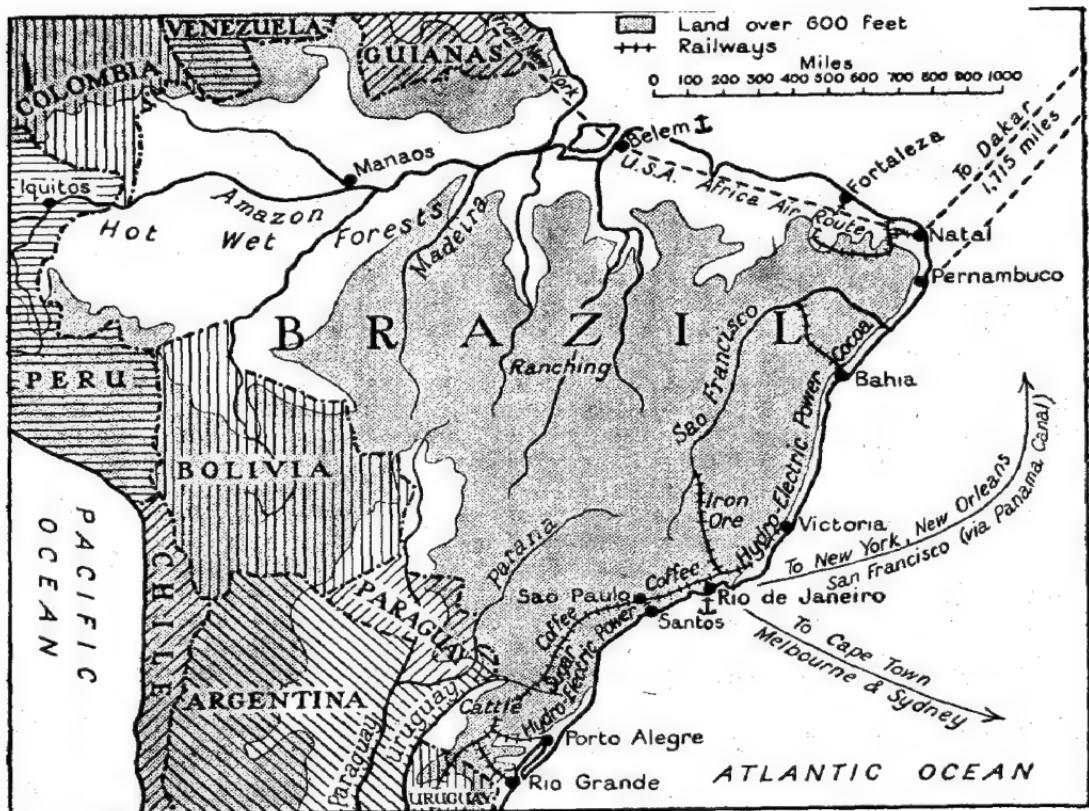


38. THE PANAMA CANAL

38. THE PANAMA CANAL

THE Panama Canal was opened in 1914. Its total cost, including fortifications, docks, and port installations, was somewhat more than 500 million dollars, four times that of the Suez Canal. The length from Colon to Panama is about 50 miles, the width varies from 300 to 1,000 feet, and the minimum depth is 41 feet. The canal is capable of taking all but the very largest vessels : its capacity is probably taken into account by America when laying down battleships. The passage normally takes 10 hours. Three pairs of locks, near each end of the canal, raise vessels to the Gatun Lake whose level is maintained by the enormous Gatun Dam.

To the United States the canal is probably even more important strategically than the Suez Canal is to Britain, for it enables the American fleet to concentrate with reasonable speed in either the Atlantic or the Pacific. Were enemy aircraft to destroy the Gatun Dam, the whole length of the Americas would prove an obstacle to communications between the two great oceans, and the distance between west and east coast ports of the United States would be increased by over 6,000 miles—a distance equivalent to a quarter of the passage round the globe. It was to strengthen the outer defences of the canal that the United States secured from Britain naval and air bases in the West Indies and at Georgetown (British Guiana). The Pacific approaches to the canal are more open to attack, though it is doubtful if carrier-borne aircraft would prove a match for shore-based aircraft defending this vital link in American and allied communications.



39. BRAZIL

39. BRAZIL

COMPARABLE in area to Europe, Brazil has 41,000,000 inhabitants (1940 census) nearly 90 per cent of whom live on the eastern margin of the highlands, or in the ports at their base.

Brazil accounts for some 70 per cent of the world's coffee and 15 per cent of the cocoa, produces cane sugar and nuts (vegetable oils), and though the amount of rubber obtained from the Amazon Lowlands is relatively small, it is estimated that in 1943 some 50,000 tons will be obtained from this region. The Republic lacks coal, but is rich in hydro-power which furnishes electricity for industrial plants including aluminium factories fed with Brazilian bauxite, supplemented by imports from the Guianas. There are ample supplies of iron ore, and steel-hardening materials, such as manganese and nickel, all of which will be required for the huge and recently completed Volta Redonda steel works. The country is also noted for industrial diamonds.

Railway development is greatest in the populous industrial south-east. But there is no railway connection between north and south, and much trade, both internal and with neighbouring

countries, is carried on either by coastal vessels plying along Brazil's 4,000 miles of seaboard, or by inland waterways, such as the Amazon, navigable for ocean vessels to Manaos, a thousand miles from the Atlantic.

Her ships having been sunk by Axis U-boats, Brazil declared war on Germany and Italy on 22 August 1942. Shortly before this date it was decided to set up a *Joint United States-Brazilian Defence Board*, similar to those already established by the United States with Canada and Mexico. One of the first tasks of the Board was to provide for the defence of the coastal bulge between Bahia and Fortaleza, then open to possible attack by Axis forces operating from Dakar, but now a base for offensive operations against the enemy.

Brazil placed at the disposal of the United Nations her airports, the chief of which is Natal; and naval bases, such as Rio de Janeiro (Ilha das Cobras) and Belem (Para). Moreover the Brazilian Navy and Air Force are now playing an important part in the Battle of the Atlantic, and are helping to keep open the sea lanes in the southern part of that ocean.

CANADA



TOTAL POPULATION



Farming



War Production



Civilian Industries



Armed Forces

Each figure represents 1,000,000 persons

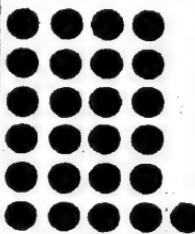
WAR
EXPENDITURE

● = \$ 100,000,000

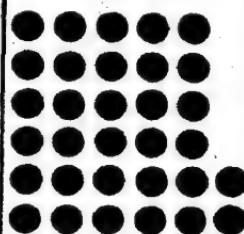
1940-41



1941-42



1942-43



SHIPS



Represents 1,000,000 tons of
new merchant shipping 1942

PRODUCTS

COPPER



NICKEL



WHEAT



Each symbol represents
10% of World production

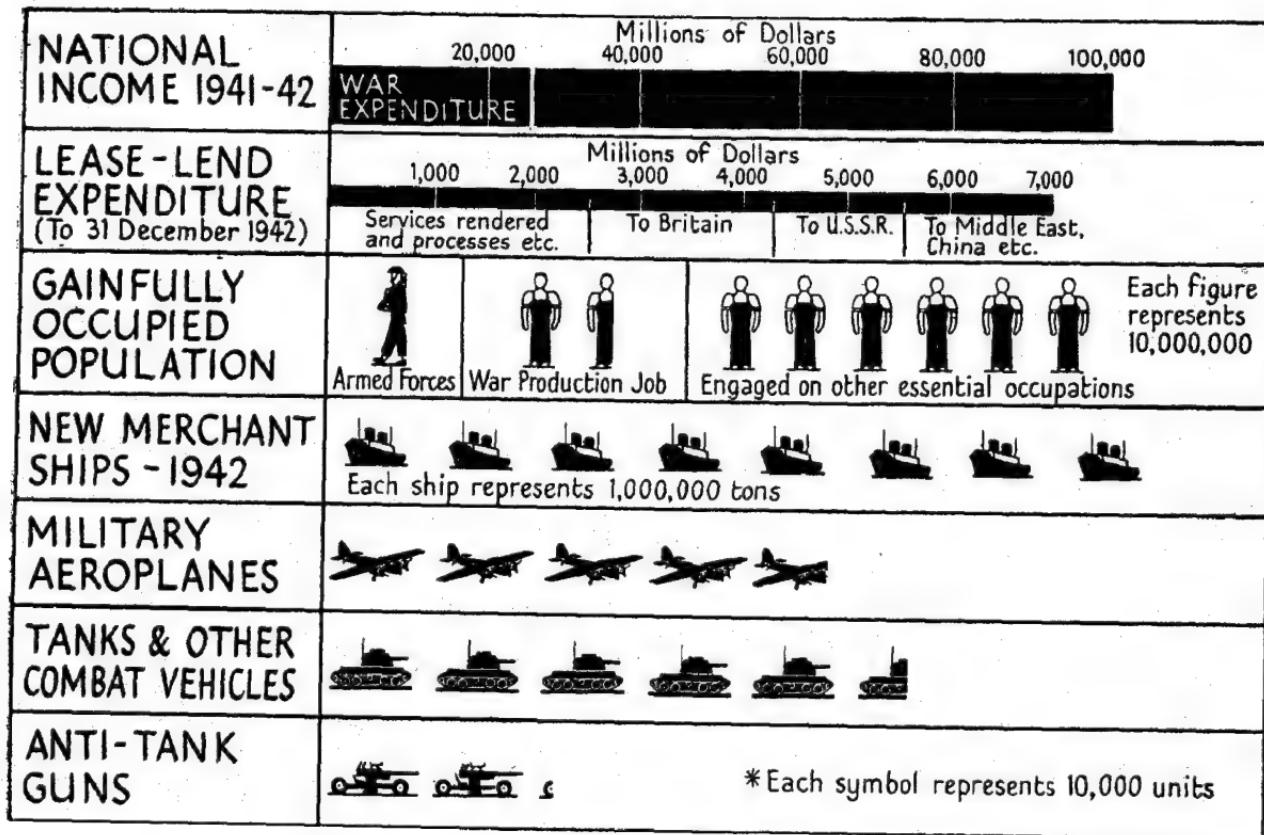
40. CANADA'S WAR EFFORT

At the outbreak of War, Canada's active Army comprised 4,500 men. By the end of 1942 there were nearly 650,000 men in the Armed Forces, including 430,000 in the Army, 53,000 in the Navy, and 165,000 in the R.C.A.F., of which some 38 squadrons were serving overseas. Under the *Commonwealth Air Training Plan* some 50,000 pilots are being trained annually in 120 stations and schools. They are drawn not only from the Dominion, the United Kingdom, Australia and New Zealand, but from other United Nations. Following a plebiscite, which released Ministers from a pledge against introducing conscription for Overseas Service, a bill authorizing Compulsory Military Service for this purpose was passed by the Dominion Parliament in July 1942. But by the end of the year it had not been necessary to implement it, as volunteers for Overseas Service far exceeded the number required. At the end of 1942 there were nearly 200,000 men serving abroad, mainly in the United Kingdom, but also in the West Indies, Newfoundland, Alaska, Bermuda, Iceland, Gibraltar, and Tunisia.

Since the war began Canada's expenditure has mounted steadily until in the financial year 1942-43 it reached 3,200 million dollars. Taxation per head is now almost as high as in Britain. Financial aid by Canada to Britain included a direct gift of 1,000 million dollars in munitions, raw materials and foodstuffs, and an interest-free loan of 700 million dollars.

In 1942 nearly a million persons were engaged in war production, over $1\frac{1}{8}$ millions in agriculture, and $1\frac{1}{4}$ million men and almost 1 million women in essential civilian occupations. Canada's output of munitions per head approaches that of Britain. The Royal Canadian Navy had expanded to 500 vessels by the end of 1942, and in that year some 1,000,000 tons of new merchant shipping was constructed. The Dominion manufactures aeroplanes, tanks and other military vehicles, guns and explosives. 85 per cent of the aluminium used in British aeroplanes comes from Canada, which obtains bauxite from British Guiana.

In one week Canada now sends to Britain more food than she did during the whole of 1931. During the year ending October 1942 she furnished the Mother Country with 600 million lb. of bacon and pork products, 115 million lb. of cheese, 32 million 1-lb. tins of evaporated milk, and vast quantities of meat.



41. AMERICA'S WAR EFFORT

FOLLOWING Japanese air attacks on bases at Pearl Harbour and elsewhere, the United States declared war on Japan on 8 December 1941. On 11 December, Germany and Italy declared war on the United States.

Since then American war production has reached an astonishingly high level, though as President Roosevelt pointed out to Congress on 7 January 1943, it was relatively no greater than that of Britain, Russia, or China.

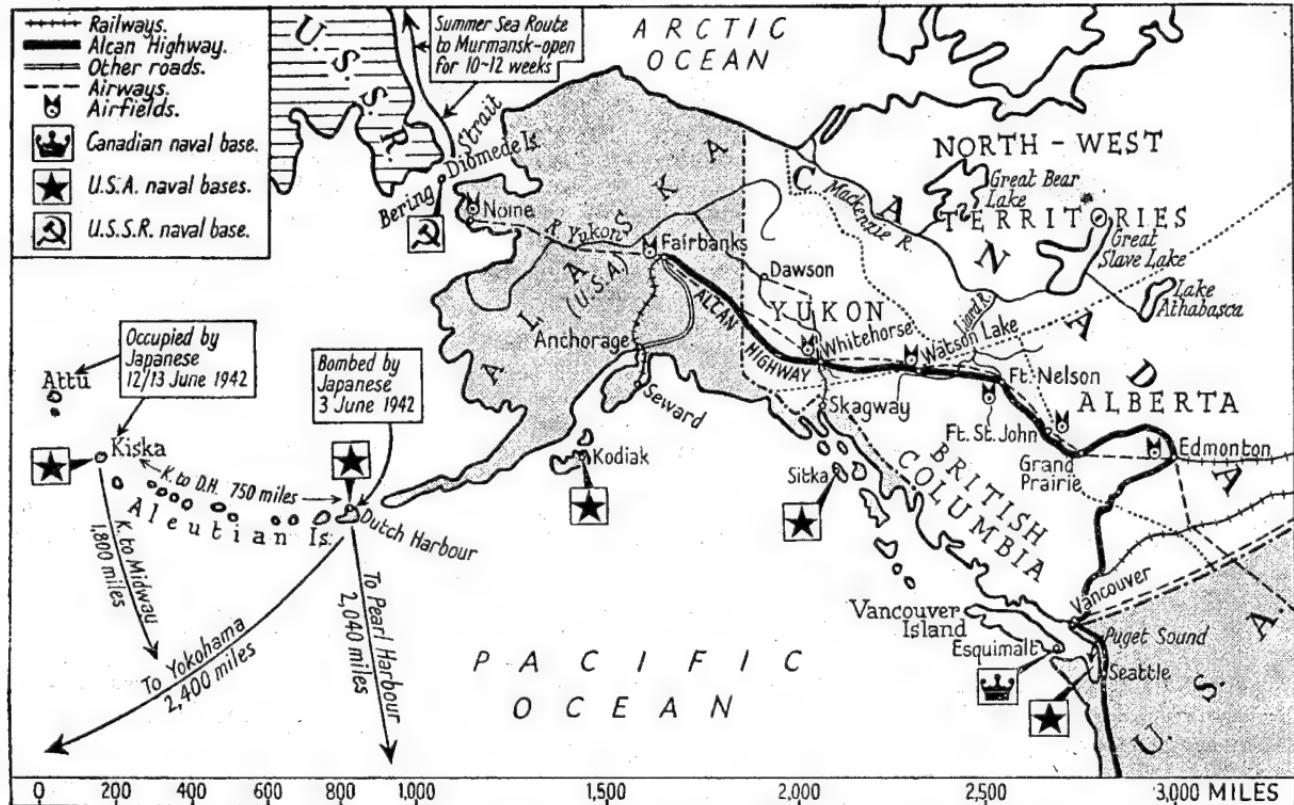
Of the National Income (i.e. the net value of goods and services rendered) approximately 25 per cent was devoted to war expenditure in the financial year 1942-43. Lease-Lend Expenditure was in the neighbourhood of \$6,500 million, a figure that included \$2,500 million worth of services rendered, processes, etc., leaving \$4,500 million worth of goods of which some 40 per cent were dispatched to the United Kingdom, nearly 30 per cent to the U.S.S.R., and the remainder to the Middle East, China, and other areas.

During 1942 America turned out 48,000 aeroplanes, a number exceeding the entire output of the Axis powers; 56,000 tanks, self-

propelled artillery and other combat vehicles; 21,000 anti-tank guns, six times the number manufactured in 1941; and 670,000 machine guns, or three times as many as were produced by the United States during the First World War. In 1942, new merchant ships, whose total tonnage amounted to 8,100,000 tons were constructed.

At the end of 1942 there were about 7 million men (including 1½ million overseas) in the Armed Forces. Over 13½ million people were directly engaged in war work, producing goods whose total monthly value was approximately \$7,000 million. And though some 5 million men had been withdrawn from the labour force and the farms, yet in 1942 the farmers produced more food than in any other year in American history.

During 1943 the War Man-power Commission will have the job of organizing 'for the most effective production the 62,500,000 Americans who must serve as the industrial rearguard to the 9 million who will be in the Armed Forces by the end of the year.'



42. ALASKA, THE ALEUTIANS AND THE ALCAN HIGHWAY

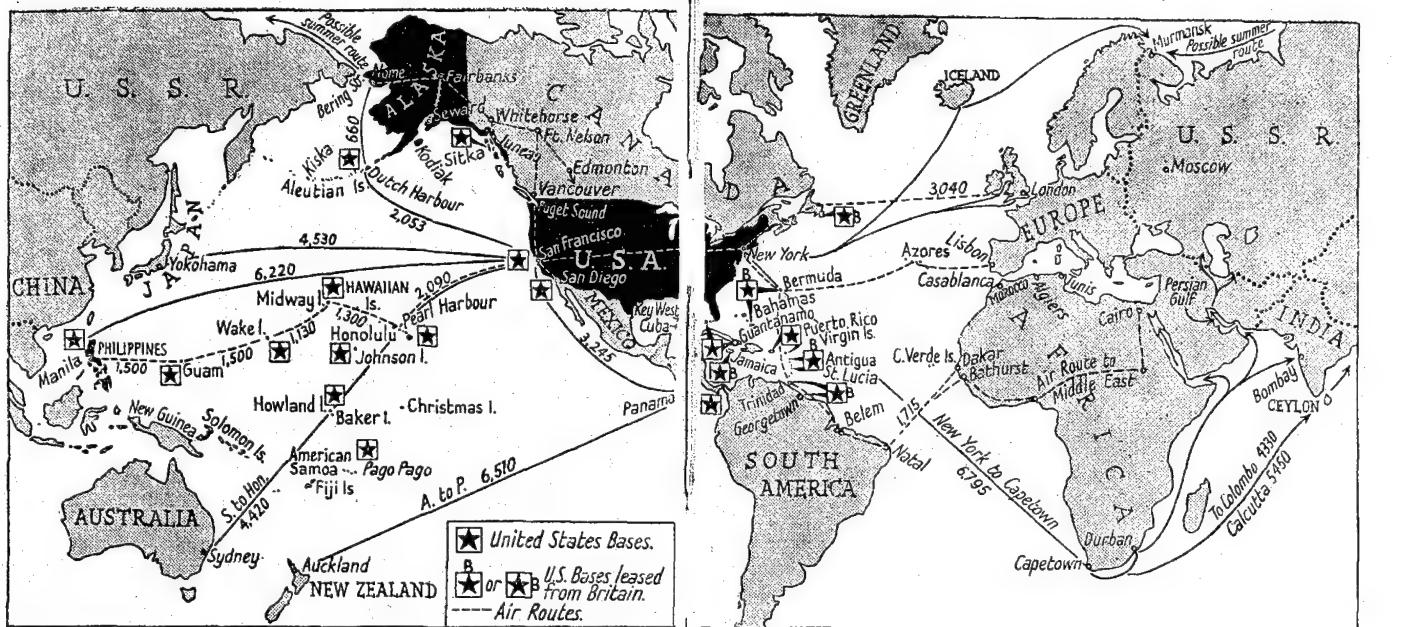
42. ALASKA, THE ALEUTIANS, AND THE ALCAN HIGHWAY

ALASKA, purchased by the United States from Russia in 1867, has an area of 586,000 square miles, and a population (mainly white) of 55,000. Some 40 per cent consists of tundra, which provides pasture for both domesticated and wild (caribou) reindeer ; but there are valuable forest, mining, and fishing resources. Partly because of the climate and rugged topography, but mainly because the Territory had no communication with the United States, except by sea and air, it remained relatively undeveloped.

Its strategic importance was recognized when, 6 March 1942, the United States and Canada concluded an agreement for the construction of the Alcan Highway. This 1,700-mile road, pushed north at an average rate of 8 miles a day, was opened for traffic in December 1942. It follows the existing road from Edmonton (Alberta) to Fort St. John (B.C.), the start of the new road, which runs thence through Fort Nelson and Watson Lake to Whitehorse (Yukon), and thence to Fairbanks, the chief air centre in Alaska. By road Fairbanks is now from 3½ to 4 days from the United States frontier compared with 9 days by sea from Seattle to Seward, and thence a day by rail (470 miles). The Alcan Highway, has been con-

structed east of the Rockies, in preference to two routes planned to run west of the mountains because (1) it is less exposed to air attack ; (2) it follows the line of strategic air bases already established by the Canadian Government, and (3) the snow-fall is less than on the seaward side of the ranges. When the Highway has been continued to Nome it should form part of a supply route to the U.S.S.R. either (a) in summer, by the Arctic, or (b) across the 36-mile wide Bering Strait to East Cape, Siberia, the terminus of Russia's highway system.

Already along the Alcan Highway move men and munitions for military, naval, and air bases in Alaska and the *Aleutian Islands*. Attu, the most westerly of the group, only 800 miles from northern Japan, and Kiska, less than a thousand miles from Paramushiro (Kurile Islands), were occupied by Japan early in June 1942. Kiska is 750 miles west of Dutch Harbour, America's principal naval base in the northern Pacific, though Kodiak and Sitka have recently been strengthened and developed. Potential invasion bases in the hands of the Japanese, these islands are also within bombing range of the heart of Japan, and so will probably figure in the final account with that treacherous country.



43. PACIFIC DEFENCES OF THE UNITED STATES

ON her Pacific fleet depends not only the security of America's western seaboard, but in great measure the safety of Australia and New Zealand, and other Allied islands scattered throughout an ocean that covers one-third of the surface of the globe.

Naval bases on the Pacific coast of the United States include San Diego, San Francisco, and Puget Sound. Sitka and Kodiak Island lie off Alaska. In the Aleutian Islands are Dutch Harbour, 1,700 miles from the nearest Japanese naval base and 2,700 miles from Yokohama, and Kiska (now occupied by Japan) some 750 miles west of Dutch Harbour.

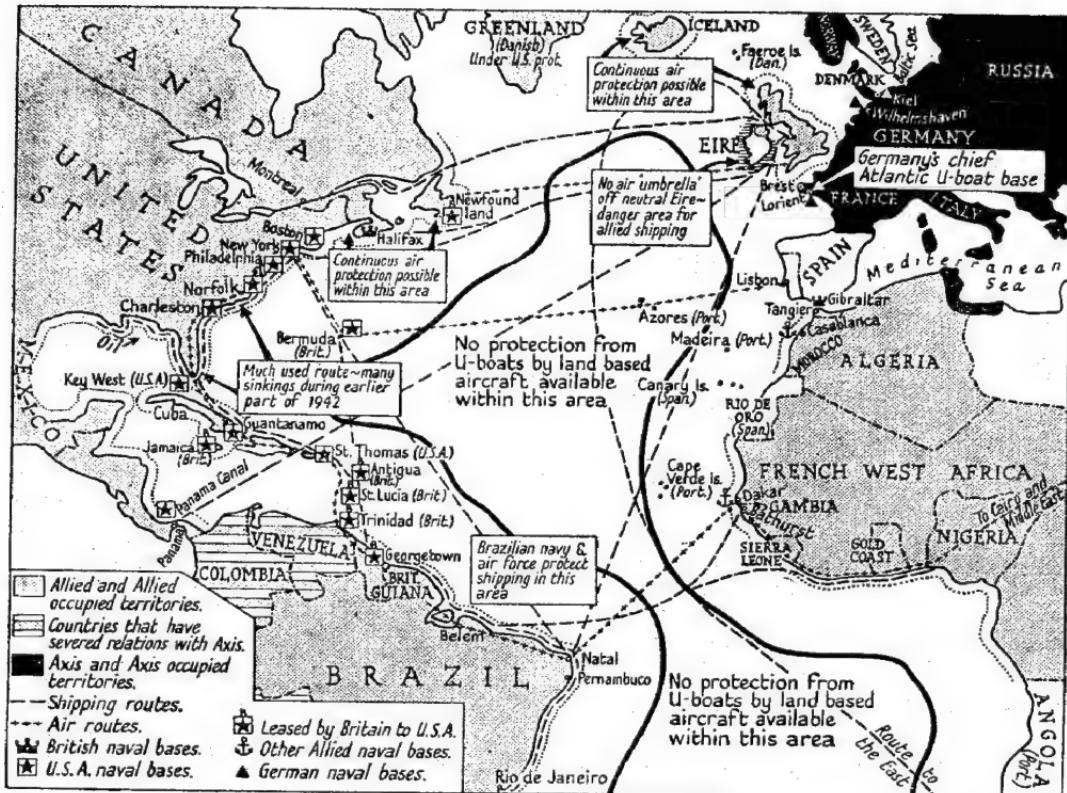
In the Hawaiian Islands the principal naval base is Pearl Harbour. Others include Midway, Wake, and Guam (both held by Japan), American Samoa, and islets, such as Johnson, Baker, and Howland. Adjacent to Manila, the capital of the (Japanese occupied) Philippines, is the important naval base of Cavite.

44. ATLANTIC DEFENCES OF THE UNITED STATES

IN September 1940 the United States acquired from Britain the right to lease naval and air bases in Newfoundland, Bermuda, the Bahamas, Jamaica, St. Lucia, Trinidad, Antigua, and British Guiana.

As will be seen by the map, these bases, together with the existing ones belonging to the United States, Britain, and Canada, form a crescent of defence stretching from Newfoundland, through Bermuda and the West Indies, to British Guiana.

Newfoundland stands sentinel over the northern approach to Canada and the United States. Bermuda, the principal defensive pivot of the eastern seaboard, is only a few hours' flight from Halifax, Nova Scotia, New York, and other coastal cities. The West Indian bases leased by Britain, with Key West in the Florida Channel, Guantánamo in Cuba, and bases in Puerto Rico and the Virgin Islands, guard the sea lanes leading to the Panama Canal, which is of vital strategic importance to the United States, for it allows her fleet to operate in the Pacific as well as in the Atlantic Ocean.



45. THE BATTLE OF THE ATLANTIC 1942

45. THE BATTLE OF THE ATLANTIC 1942

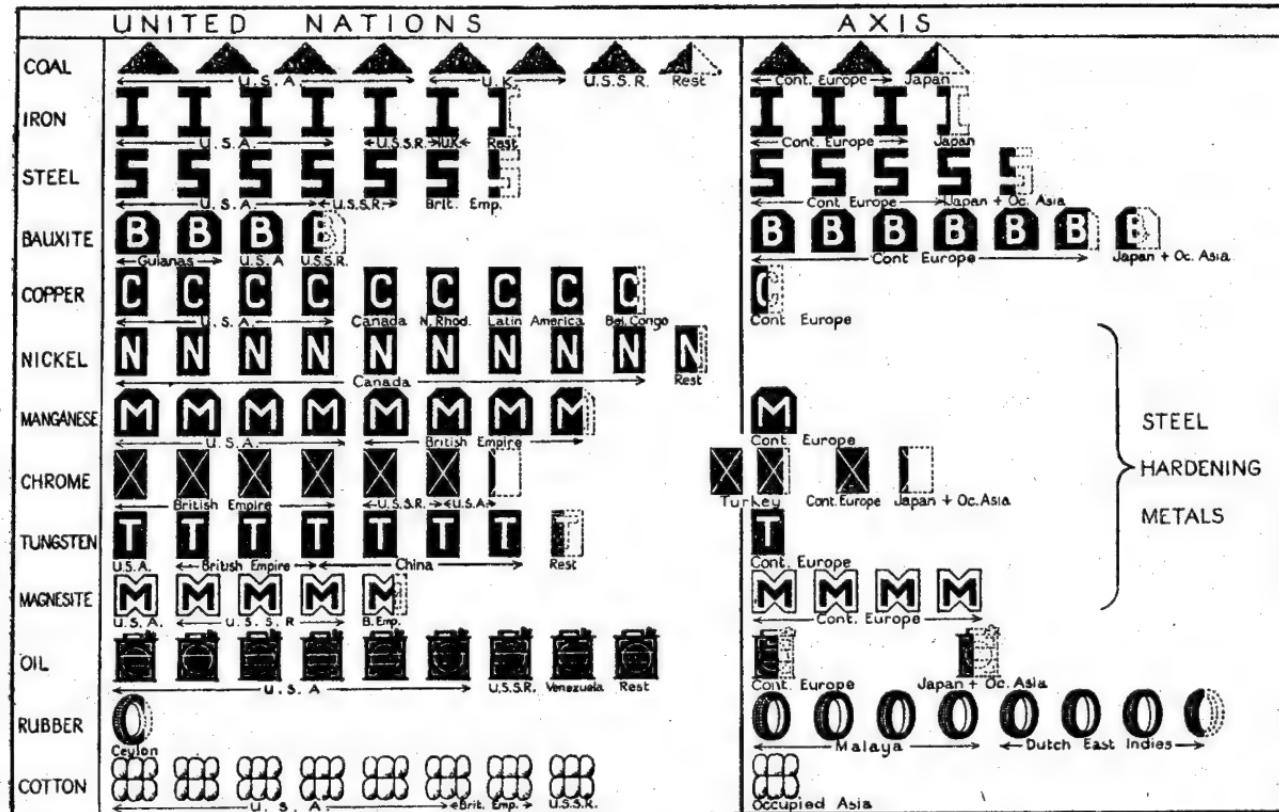
DURING 1942 the Battle of the Atlantic was waged with increasing severity. Though the entry of the United States into the war added vast naval resources to the United Nations, it imposed an additional strain on shipping, owing to increased commitments.

At the end of 1942 it was authoritatively stated in Washington that at any one time there were at least 100 U-boats at work in the Atlantic, a number (making allowance for the distance they operate from their bases) which means an actual force of some 400. Moreover, instead of hunting in packs, the U-boats now work in echelons of packs, often contacting convoys by day and attacking them at night. Though always trying to find areas where escorts are weakest, the U-boats have certain favourite hunting grounds, notably (a) off Newfoundland ; (b) in the Caribbean Sea ; (c) off the east coast of the United States, where during the first half of 1942 the sinkings comprised about 75 per cent of the total for that period ; (d) at the Atlantic entry to the Strait of Gibraltar ; (e) off the west coast of Africa, and (f) off Capetown.

Success in the Battle of the Atlantic depends on close co-operation between naval and air forces. Convoys, whose speed is naturally

conditioned by the speed of the slowest ships, are protected by cruisers, destroyers and other escort vessels, as well as by carrier-borne aircraft. Shore-based fighter aircraft can provide an 'umbrella' for distances ranging from 50 to 70 miles from land. Aircraft of Coastal Command protect the Western Approaches to the British Isles, though within this area convoys are exposed to enemy attacks from bases ranging from Norway to France.

Fast destroyers and long-range bombers hunt submarines. In 1942 more than half the effective attacks on U-boats were made by aircraft. But as the range of shore-based bombers is, of necessity, limited, there is in mid-Atlantic a considerable area where convoys must rely on their escort vessels, and on carrier-borne aircraft for protection against submarines. Escort vessels attack U-boats with depth charges, and hostile aircraft with A.A. guns. They alone can provide continuous protection for convoys. Success in the Battle of the Atlantic is vital to the United Nations, for were Germany able to starve Britain she would reduce to impotence the chief bastion for offensive operations against enemy-occupied Europe.



46. THE BATTLE OF SUPPLIES—STRATEGICAL MATERIALS

46. THE BATTLE OF SUPPLIES—STRATEGICAL MATERIALS

As regards most strategical materials the United Nations are better placed than the Axis. But it must be remembered that supplies available to the former countries are widely distributed over the earth's surface, whereas those accessible to the Axis—or at any rate to its European members which in effect means Germany—are more easily assembled, and hence have a greater potential as compared with an actual value.

Germany commands virtually the whole of the strategical materials of Continental Europe, whether occupied, allied to her, or neutral. Japan, by her conquest of South-East Asia, has secured the bulk of the world's rubber, a considerable proportion of the tin (useful as an alloy), and sufficient oil for her war machine.

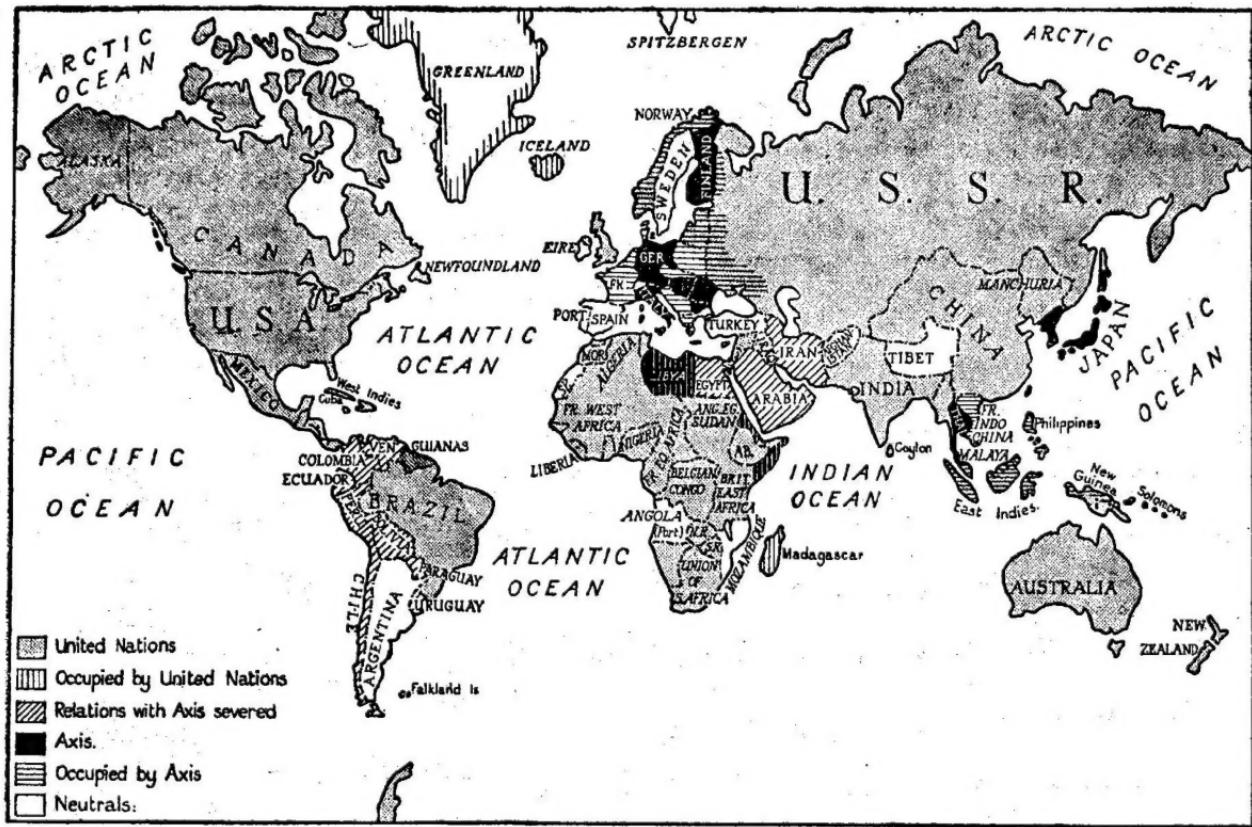
The diagram shows that though the United Nations possess a preponderance of coal and iron, and hence of steel, yet Germany has probably sufficient for her needs. She is, however, deficient in steel-hardening metals, except magnesite of which Austria, Czechoslovakia, Greece, and Yugoslavia are considerable producers. As regards bauxite, the ore of aluminium (after steel the most important of all metals) Germany has the advantage over the

United Nations, and incidentally it may be noted that for electrical windings and other purposes she uses aluminium as a substitute for copper.

For oil, Germany depends mainly on her own synthetic production, and on Rumania, which, however, accounts for less than 3 per cent of the world's output. As these supplies are inadequate to her needs Germany attempted unsuccessfully to obtain control of the Caucasian oil wells, Russia's major source of supply.

As Japan's rubber cannot be made available to her European partners, the latter are obliged to rely on synthetic production, in the manufacture of which they are more advanced than the United Nations. The Axis also lacks cotton, which apart from its use for clothing, is needed to reinforce tyres, for aircraft and balloon fabrics, and, of course, for the manufacture of explosives.

The Battle of Supplies depends not only on the rapidity with which strategical materials can be converted into munitions, but for the United Nations it is linked with command of the sea, which, given mastery in the air, enables them to convey men and materials to the decisive spot at the decisive time.



47. GLOBAL WAR

THIS is truly a Global War. It extends, in greater or less measure, to every continent, and is waged on every ocean. All the Great Powers, and many of the

smaller ones, are combatants. No country in the world is unaffected. The table below shows the belligerents and the States with which they are at war.

UNITED NATIONS :	AT WAR WITH AXIS COUNTRIES :							
	Germany.	Italy.	Japan.	Finland.	Hungary.	Rumania.	Bulgaria	Thailand.
British Empire.. (Except Eire)	X	X	X	X	X	X	X	X
U.S.S.R.	X	X	X	X	X	X	X	X
U.S.A.	X	X	X	X	X	X	X	X
China ..	X	X	X	X	X	X		
Czechoslovakia..	X	X	X	X	X	X	X	X
Poland ..	X	X	X	X				
Norway..	X							
Holland ..	X	X	X					
Belgium ..	X							
Greece ..	X	X	X				X	
Yugoslavia ..	X	X	X		X		X	
Fighting French	X	X	X	X				
Brazil ..	X	X	X					
Mexico ..	X	X	X	X				
Cuba ..	X	X	X	X				
Dominican Rep.	X	X	X	X				
Haiti ..	X	X	X	X	X	X	X	
Honduras ..	X	X	X	X	X	X		
Nicaragua ..	X	X	X	X				
Salvador ..	X	X	X	X				
Panama ..	X	X	X	X				

Countries that have severed diplomatic relations with the Axis include the Arab States, Egypt, and Afghanistan, together with all the South American Republics, except Argentina. The principal neutral States are Sweden and Switzerland ; Spain, which

may be regarded as pro-Axis, and Portugal, together with their overseas possessions ; and Turkey, an ally of Britain. Eire is the only country in the British Commonwealth to maintain relations with Germany and Italy.

48. MAJOR EVENTS : 1 SEPTEMBER 1941 to 1 JANUARY 1943

29 September 1941. Three-Power Conference (U.S.S.R., Britain, U.S.A.) opens in Moscow.

25 November. Anti-Comintern Pact renewed between Axis countries.

7 December. Japan attacks British and American bases in the Pacific. Britain declares war on Finland, Hungary, and Rumania.

8 December. The United States and Britain declare war on Japan.

11 December. Germany and Italy declare war on the United States.

22 December. Announced that Mr. Churchill had arrived in Washington.

1 January 1942. Twenty-six Nations sign Pact in Washington.

25 January. Thailand declares war on Britain and United States.

9 February. Pacific Council set up in London.

29 March. British Government announces proposals for Dominion status for India. 10 April. Offer rejected by Congress. Grave disorders are followed by arrest of Mr. Gandhi and other Congress Leaders (9 August).

26 May. Anglo-Soviet Treaty signed in London.

28 May. Mexico declares war on Axis Powers (as from 22 May).

30 July. Conscription Bill passed by Canadian Senate.

12 August. Prime Minister arrives in Moscow (from Egypt).

22 August. Brazil declares war on Germany and Italy.

8 November. Anglo-American landings in French North Africa.

11 November. Germans enter Vichy France.

24 November. French West Africa joins Allies.

27 November. French Fleet at Toulon partly scuttled.

24 December. Admiral Darlan assassinated and is succeeded as High Commissioner (27 December) by General Giraud.

28 December. French Somaliland joins the Allies.

Libya, Egypt, etc. British advance into Cirenaica 18 November, but are driven back in February 1942. Battle of Egypt begins on 26 May. Germans cross frontier 23-24 June, but are halted at El Alamein. British advance into Tripoli commences on 23 October 1942.

Madagascar. British landings (1) 5 May; (2) 10 September 1942. Armistice signed 5 November 1942.

Russia. Germans continue to advance (capturing Kiev and Kharkov), until 6 December 1941. Russian counter-offensive continues until mid-June 1942. Germans advance during summer (a) across Don and invest Stalingrad; (b) into Caucasia. Russian winter offensive, during which the siege of Stalingrad is raised and Germans are driven back across Don, begins towards end of November 1942.

South-East Asia. Hong Kong falls 25 December 1941. Conquest of Malay Peninsula completed by 31 January 1942. Singapore capitulates 15 February. Burma occupied by Japanese by mid-May 1942. Dutch East Indies surrender 8 March. Resistance ended in the Philippines 6 May 1942.

New Guinea-Solomons, etc. Early in 1942 Japanese occupy New Britain, New Ireland, Northern Solomons, and east of New Guinea (except southern Papua). Papua freed from Japanese early in 1943.

Major Naval Engagements. 10 December 1941 *Prince of Wales* and *Renown* sunk off coast of Malaya. Battle of Strait of Macassar 25-27 January 1942. Battle of Java Sea 27 February. Japanese sink *Dorsetshire*, *Hermes*, and *Cornwall* in Indian Ocean 9 April. Pacific: Japanese defeated in (a) Battle of Coral Sea (4-8 May); (b) Battle of Midway (3-6 June). Naval-Air actions in Solomons area (see 34), between 8-9 August and 1 December 1942.

The author of this Atlas, Mr. Jasper H. Stenbridge, who has written many well-known text-books of geography, is Geographical Editor to the Oxford University Press. He is also the author of *An Atlas of the U.S.S.R.* and *An Atlas of the U.S.A.*, in the Oxford Pamphlets on World Affairs; and of *A Portrait of Canada* (ready in September 1943) in which he describes his experiences throughout Canada, and records conversations with statesmen and officials down to miners and lumberjacks.

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